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PEOPLE OF THE SERPENT



THOMPSON OF YUCATAN

PEOPLE OF THE SERPENT

Life and Adventure Among the Mayas



By EDWARD HERBERT THOMPSON



WITH ILLUSTRATIONS

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THE MAYA WELL OF SACRIFICE

FROM the court in front of these theaters [at Chichen Itzá] runs a wide and handsome roadway as far as the Well, which is about two stone's-throws off.

Into this Well they have had and still have the custom of throwing men alive as a sacrifice to their gods in time of drought, and they believed they would not die, though they never saw them again. They also threw into it many other things like precious stones and things they prized, and so if this country had possessed gold it would be this Well that would have the greater part of it, so great is the devotion that the Indians show for it.

Relación de las Cosas de Yucatan
BISHOP DIEGO DE LANDA, 1566

PREFACE

I HAVE long had it in mind to prepare a record of my life and work in Yucatan, believing that such a narrative would be of interest, first, to my family, then to my many good friends in this country and abroad, and perhaps also to the American public, whose attention is turning more and more towards the antiquities of this continent. This plan I have now carried out and I can only hope that it will fulfill the purpose for which it has been intended.

During my active years in the Land of the Mayas, in my various capacities of United States consul, archæologist, and planter, there was little time for autobiographical effort. Later, when I reviewed the accumulated material of nearly fifty busy and fruitful years, the effect was rather astounding. As a methodical scientist should, I had kept meticulous notes on all my explorations in the ancient cities. It had been my privilege to number among my friends some of the H'Menes, or Wise Men, of the modern Mayas and from these to gather great store of the myths and legends of the race. In addition, largely because of my choice to live close to the Indians and study their psychology, I had met with sundry adventures, some of which seemed to me worth chronicling.

To compass the essentials of all this within the covers of a single volume was to me a task of the first

magnitude, for I had lived it through and it was a part of me. The situation demanded the perspective of another mind, and in this difficulty I turned to my friend Mr. W. E. Playfair, whose long and varied experience as newspaper man and writer gave him a peculiar fitness for the work. He consented to share the burden and has given of his time and effort without stint. I gladly acknowledge my debt to him in the matter of selection and arrangement of material and of giving this book 'a beginning, a middle, and an end.'

EDWARD HERBERT THOMPSON
WEST FALMOUTH, MASSACHUSETTS

April, 1932

CONTENTS

| | |
|---------------------------|------|
| FOREWORD, BY W. H. HOLMES | xiii |
|---------------------------|------|

PART I

MAYAS, ANCIENT AND MODERN

| | |
|---------------------------------------|----|
| I. RIOTOUS EXPLORATIONS | 3 |
| II. TO YUCATAN VIA ATLANTIS | 13 |
| III. A GLIMPSE AT THE EARLY AMERICANS | 19 |
| IV. WATCH-TOWERS OF PROGRESO | 28 |
| V. AN EXPLORER 'GOES NATIVE' | 35 |
| VI. KEEPER OF THE SACRED DRUM | 42 |
| VII. INVOCATION OF THE RAIN GOD | 53 |
| VIII. THE MIRACLE OF T'HO | 65 |
| IX. LANDING OF THE CHANES | 75 |
| X. THE MAYA ADAM AND EVE | 80 |

PART II

YUCATAN DAYS AND NIGHTS

| | |
|----------------------------------|-----|
| I. THE CAVE OF LOLTUN | 89 |
| II. IN A WELL WITH A RATTLESNAKE | 100 |
| III. A WILD RIDE IN A VOLAN | 109 |
| IV. XKICHMOOK, THE HIDDEN CITY | 116 |
| V. THE LAKE OF BITTER WATERS | 127 |
| VI. THE MISSING MONOLITH | 137 |
| VII. LOST IN THE DESERT | 150 |

| | |
|-----------------------------|-----|
| VIII. BEARDING THE JAGUAR | 161 |
| IX. A TRAP IN THE JUNGLE | 173 |
| X. WITH CHISELS OF NEPHRITE | 180 |

PART III

CITY OF THE SACRED WELL

| | |
|----------------------------------|-----|
| I. THE ANCIENT MAYA CAPITAL | 191 |
| II. A CASTLE OF SPAIN | 206 |
| III. THE GREAT MIGRATION | 219 |
| IV. THE PLANTATION OF CHICHEN | 230 |
| V. THE CHATELAINE'S HOMECOMING | 240 |
| VI. THE MAYA DATE STONE | 251 |
| VII. THE HIGH PRIEST'S SEPULCHER | 259 |
| VIII. THE WELL OF SACRIFICE | 268 |
| IX. A DIVER IN THE SACRED CENOTE | 280 |
| X. THROWING-STICKS AND JADE | 290 |
| XI. FAREWELL TO YUCATAN | 297 |

ILLUSTRATIONS

| | |
|---|---------------------|
| THOMPSON OF YUCATAN | <i>Frontispiece</i> |
| AIRPLANE VIEW OF CHICHEN ITZÁ TAKEN BY COLONEL LINDBERGH | 10 |
| FAÇADE OF THE PALACE OF FRANCISCO MONTEJO | 26 |
| THE RATTLESNAKE'S WELL AT LABNA | 102 |
| THE SNAKE OF THE WELL | 106 |
| A VOLAN | 110 |
| XKICHMOOK, THE HIDDEN CITY | 124 |
| THE LOST MONOLITH | 146 |
| MAKING MOULDS OF THE PORTAL AT LABNA | 146 |
| LARGE STONE FIGURE BROUGHT UP FROM THE SACRED WELL | 178 |
| EARTHEN VESSELS FROM THE SACRED WELL | 178 |
| COLUMNS IN THE TEMPLE OF THE WARRIORS, CHICHEN ITZÁ | 192 |
| TEMPLE OF KUKIL CAN, CHICHEN ITZÁ | 196 |
| THE NUNNERY, CHICHEN ITZÁ | 234 |
| THE AUTHOR'S HOUSE, CHICHEN | 240 |
| THE GATEWAY OF SADNESS | 248 |
| THE INSCRIBED TABLET OF CHICHEN ITZÁ | 252 |
| THE SACRED WELL OF CHICHEN ITZÁ | 268 |
| DREDGING THE SACRED WELL | 272 |

FOREWORD

By W. H. HOLMES

*Director National Gallery of Art, Smithsonian Institution, Washington
Formerly Chief of the Bureau of American Ethnology
Department of the Interior*

THIRTY-FIVE years have passed since the writer of this introductory note, together with members of the Field Columbian Museum expedition to Yucatan, landed at Progreso from the A. V. Armour yacht Ituna. The party, which included Mr. Armour, was met by Mr. E. H. Thompson, ex-consul of the United States at Merida, who joined us for a three months' exploration in the fascinating realm of the ancient Mayan civilization. For the writer, a student of the simple archæology of the North, it was not an ordinary exploration that awaited him, but a succession of thrills, a series of revelations for which he was but little prepared. To him it was an episode unsurpassed in interest by any previous experience during his many years of archæological exploration.

To Mr. Thompson the story was not a new one. For years he had lived and labored in Yucatan, a student of the people as well as of their history and antiquities. He had acquired the abandoned hacienda of Chichen as a home, an establishment which today is the headquarters of the exploring staff of the Carnegie Institution. In my report to the Field Columbian Museum on the work of the expedition, I find the following lines, hardly less than prophetic when we consider the publication of the present volume:

'Mr. E. H. Thompson, who has visited and thoroughly familiarized himself with all the centers of Mayan culture, recognizes the superiority of Chichen Itzá as a field for research and has settled down here with the intention of devoting the best years of his life to a monographic study. If he should live to carry out this plan, and he is yet a young man, and fully acclimated to Yucatan, we may look forward to a fitting and satisfactory presentation of the ancient cities of the New World before the processes of nature, aided by the violent hand of man, shall have finally leveled them with the ground.'

With Mr. Thompson we visited and studied the crumbling remains of numerous ruined cities, including Chichen Itzá, Uxmal, Mitla, and Palenque. With him we peered into the jade-green waters of Chen Ku, the sacred *cenote*, a gigantic natural well, the depository of priestly sacrifices for long-forgotten periods, of the wonders of which only Mr. Thompson can tell. With him we descended into the sepulchers of the priestly dead, speculated upon the significance of the glyphic inscriptions and admired the skillfully sculptured images of heroes and gods. Together we penetrated the deep forests in search of the ancient quarries and the implements of the quarrymen, and marveled at the energy and engineering skill displayed in the cutting-out and transportation of colossal masses of limestone, these to be sculptured when in place with a mastery of the sculptural arts and architectural arts hardly surpassed by the civilized peoples of the Old World.

Not only has the author of this work made himself

the leading authority on the antiquities of Yucatan, but he has associated with the present people, the descendants of the temple-builders, studying every phase of their culture, their habits and customs, their language, religion, folklore, and history.

This work of Mr. Thompson is not only rich in its presentation of the art achievements and history of the leading peoples of America, but contributes greatly to our knowledge of exceedingly interesting phases of the evolution of a new form of glyphic writing and a calendar system new to the world.

PEOPLE OF THE SERPENT



PART I

MAYAS, ANCIENT AND MODERN

PEOPLE OF THE SERPENT

PART I

MAYAS, ANCIENT AND MODERN



CHAPTER I

RIOTOUS EXPLORATIONS

ALMOST half a century, a lifetime, has passed since an eager-eyed youth, then the youngest American consul in the Mexican field of service, first trod the red earth of Yucatan and saw its ruined cities. The intervening years, filled with taxing but congenial effort, have sped like a dream and it is difficult for me to accept the fact that the youth is now grown old, save perhaps for an unageing enthusiasm. My active work completed, I must sit among the elders and, as an elder will, review the days I have lived and weigh their accomplishment.

For more than forty years, first as consul-archæologist, then as archæologist-planter, I devoted my life to the fascinating study of the ancient American civilization which left its traces on and near the Yucatan peninsula. Much has been done, but much more remains to be done before we can have a clear vision of that civilization and what it has accomplished. I have contributed my mite to the body of knowledge

which many scientific minds have been assembling on the subject and I now leave the field to others. The Carnegie Institution of Washington has taken up the task, and with its vast resources will doubtless carry the undertaking on to issues of which I could only dream. And I shall hope to watch this progress with great content.

I am an enthusiast by nature and so completely did I give myself to my work in Yucatan that some of my contemporaries spoke of me as impractical. I carried out many explorations for such institutions as the Peabody Museum of Harvard, the Field Columbian Museum of Chicago, and others, but when there was an expedition to be made and no great foundation at hand to sponsor it, I was wont to undertake it all the same, on my own account. I purchased and restored the great plantation of Chichen, which included within its bounds the ruined group of Chichen Itzá, ancient capital and sacred city of the Mayas, so that I might the better study this, the greatest monument of a vanished race. I have squandered my substance in riotous explorations and I am altogether satisfied. The reward of a labor of love lies in the performing of it, and I can look back upon a career as full of incident and adventure as any man has the right to expect.

As veteran of a long campaign in the forests and jungles of Middle America, I bear certain honorable scars. I am slightly deaf because of ear-drums injured while I was diving in the Sacred Well of Chichen Itzá to prove that this venerable water pit was once used for human sacrifice. A poisoned trap set by

Indians in the remote hinterland of Yucatan left me with a lameness in one leg. Several bouts with jungle fever robbed me of my once luxuriant locks earlier perhaps than they would have passed in the normal course of nature. On a number of occasions I have been in imminent danger of death in various unpleasant forms. But there were many high moments in my life in Yucatan any one of which outweighs the sum total of these debits.

Such a moment it was when I first gazed upon the glistening temple and palaces of Xkichmook, the Hidden City. Others are linked with discoveries which will probably be recorded as my most important contributions to this branch of archæology. These were, first, the finding at Old Chichen of the tablet of the Initial Series, or date stone, which has thrown considerable light on Maya history; second, the proving that ancient traditions concerning the Well of Sacrifice at Chichen Itzá were true; and third, the discovery of the Tomb of the High Priest in a hollow pyramid at Chichen, the only one of its kind yet brought to light. The thrill I experienced in any one of these finds made years of work and hardship seem well worth while.

I have said that much remains to be done before the riddle of the race we call Mayas can be read. In spite of the labors of pioneers in the field for many years and of the recent great achievements of distinguished scientists, the surface of the problem has been scarcely more than scratched. The reason for this obscurity lies mainly in the fact that the Spanish *Conquistador* was long on the acquisition of gold and

the saving of souls, but extremely short on the conservation of ancient pagan learning. With the armies that conquered ancient Egypt, or ahead of those armies, went learned philosophers who mastered the culture of the country they invaded, and thus it came about that in later years the Rosetta Stone, with characters in hieroglyphics, Demotic and Greek, furnished the key to the secrets of the Egyptian monuments. One pathetic passage in the old Maya chronicles has this to say of the coming of the Spaniards:

“It was then that the teaching of Christianity began, that shall be universal over our land.... Then began the execution by hanging, and the fire at the ends of our hands. Then also came ropes and cords into the world. Then the children of the younger brothers passed under the hardship of legal summons and tribute.... Then the seven sacraments of the Word of God were established. Let us receive our guests heartily; our elder brothers come!

These ‘elder brothers’ were no philosophical Greeks, but ruthless Empire-snatchers of the sixteenth century. With the armies of the *Conquistadores* went missionary priests who held little with pagan superstitions and sought to convert the heathen swiftly to their own uncompromising creed. The fire was not all ‘at the ends of our hands,’ for the sacred books of the Mayas, containing the lore of the ages and of inestimable value, went up in smoke on the pyre of ignorant bigotry. Only three of these codices are known to exist today. For this vandalism must answer that strange man Diego de Landa, for years a Franciscan missionary among the Mayas, and later second Bishop of Yucatan. His enemies, including

some of his own priesthood, called De Landa hard-hearted, fanatical, and cruel, and he was even tried in Spain for his cruelties to the Indians of Yucatan. Yet I believe that in his case the soul of an archæologist was hidden under the cassock of the zealot. After destroying priceless historical material he bethought himself of writing a history, '*Relacion de las Cosas de Yucatan*' — 'Account of the Things of Yucatan' — which has been of great assistance to students of the Mayas. It was in reading this book that I first conceived the idea of searching the waters of the Sacred Well at Chichen Itzá for evidences of human and other sacrifices. Here is what De Landa himself had to say of the sacred books of the Mayas:

They wrote their books on a large, highly decorated leaf doubled in folds and enclosed between two boards and they wrote on both sides in columns corresponding to the folds. The paper they made from the roots of a tree and gave it a white varnish on which one could write well. This art was known to certain men of high rank and because of their knowledge of it they were much esteemed, but they did not practise the art in public.

This people also used certain characters or symbols with which they wrote in their books of their antiquities and their sciences; and by means of these and of figures and by certain signs in their figures they understood their writings and made them understood and taught them....

We found among them a great number of books of these letters of theirs and because they contained nothing that was not superstition and falsities of the Devil, we burned them all, at which they were exceedingly sorrowful and troubled.

Thus there is little likelihood of finding a Rosetta Stone in Middle America, unless — and this is the

fond dream of many a scientist — some day there may be discovered a tablet bearing upon it side by side inscriptions in Maya and in the Aztec characters, many of which have been deciphered. Through the efforts of such scientists as Bowditch, Morley, and Spinden some thirty per cent of the available Maya glyphs, chiefly those dealing with chronology and astronomy, can now be read. These include the signs for the days, months, numbers, certain planets, directions, special times in the year, and so on. But in the main the language of the few sacred books still remaining and of the inscriptions on hundreds of edifices in the Maya area remain uncomprehended and incomprehensible. And the history of the Mayas has never yet been written.

For years I lived in hopes of finding a hitherto undiscovered codex, and once I thought I was on the point of realizing that dream.

An Indian had told me that years before he had found in an ancient grave a sealed vase. Believing that he had unearthed treasure in gold or jewels, he opened the vase and to his great disappointment found that it contained nothing but a kind of paper. When I heard the word 'paper,' I became mightily interested.

'What kind of paper was it?' I asked.

'Just a scrap of paper folded up with what looked like a lot of little red and black monkeys painted on it,' was the answer. The Indian said he had taken the vase to his home and placed it behind the altar.

'Where it is now God only knows,' he added.

I promised José, the Indian, that I would give him

a fine horse and a still finer saddle for it if he would show me that paper, and we set out for his native village. Arrived at his home we asked the widow of his brother where the paper was. Alas, it had been destroyed in some house-cleaning operation, another irretrievable loss to science.

Noting my disappointment at failing to find the document, the woman said sympathetically: 'But I have another paper here and I will show it to you.'

She went behind the altar and brought out a printed form of indulgence which she had obtained from the village priest. It was of little use to me at the moment.

The vase was still intact and may now be seen in the Peabody Museum of Harvard University. It is a terra-cotta vessel and had been sealed on the top with bitumen, a common method among the Mayas of preserving sacred writings. Probably the grave in which the Indian found it was that of an ancient priest.

From statements made by certain of the earlier writers and from things I have been told by the natives I believe that up to about one hundred and ten years ago there were men still living who could read the Maya glyphs. An old *H'Men*—*Wise Man*—who was my friend told me that he believed there was a time, 'in the time of our near forefathers,' when one or two persons could read these *dzibob*—dark, or mysterious, writings. But these have passed without transmitting the secret to others.

I have lived to see a great change in the attitude of the American public toward their own antiquities.

Until comparatively recent years, the ancient cities of Egypt and Mesopotamia held vastly greater interest for Americans than the remains of a once glorious civilization on their own continent. Only a few scientific men were preoccupied about the Mayas in those days. I went to Yucatan following in the footsteps of men like John L. Stephens, well worthy to be called a pioneer in the field, Stephen Salisbury, Augustus Le Plongeon, and Désiré Charnay, all of whom were 'voices crying in the wilderness,' so far, at least, as the general American public was concerned. But now all that is altered.

Every expedition to study an ancient group of ruins in Central America is chronicled in the newspapers and every new scientific discovery is widely heralded and acclaimed. Day by day the press of America contains information regarding the progress of archæological research in the Yucatan peninsula or in Mexico. Thousands of tourists each year visit the more accessible Maya ruins and the honk of the automobile horn is heard even beside the Sacred Well at Chichen Itzá. New access to this movement was given by the flight of Colonel Lindbergh over the Maya area. We who have spent our lives endeavoring to piece together the story of that vanished culture rejoice at these developments. Such widespread interest must inevitably mean the attracting to the work of more and more scientific foundations and larger capital for the enterprise. Not long ago I heard that an archæologist whose name had long been linked with operations in Mesopotamia was considering transferring his efforts to the Yucatan



AIRPLANE VIEW OF CHICHEN ITZÁ TAKEN BY COLONEL LINDBERGH

peninsula because of the great revival of interest in the Maya civilization. I cite this merely as one additional proof that the antiquities of America are at last attracting the attention they deserve.

In preparing this volume I have not set out to write an autobiography or even to describe in detail the activities of my forty-two years in Yucatan. The scientific findings of my various explorations are embodied in many bulletins issued by the several learned societies for which the work was done, and I will note these publications from time to time for the benefit of the archæologically minded. It has been my plan to present only the highlights of my career as consul-archæologist, the adventures and incidents of a somewhat unusual nature, and to dwell at greater length on other matters.

There will be much, for example, about those intelligent Indians, the so-called Mayas, the cleanest, and in many respects the most interesting, among the primitive peoples of the Americas; and something of the experiences of the Yankee archæologist who became almost a Maya in the belief that a close study of the psychology of the descendants of the ancient builders and calendar-makers might be of aid in reconstructing the ideas and methods of times long past. I have long believed that the rich folklore of the modern Mayas contains many matters which are of the very essence of history, and while I lived among them I learned their legends firsthand, about the campfire on the jungle trail or while at work in the ruined cities of their forefathers. The ancient Maya tongue became my second language to such an

extent that when, some years ago, I first began to lecture in the United States, I frequently found myself about to utter an Indian word before its English equivalent occurred to me.

Finally, I shall dwell lovingly upon the ancient city of Chichen Itzá, where my life-work as an archæologist reached its fruition. Here, surrounded by the traditions and the monumental survivals of a dead civilization, I made my home for many years. In a very real sense it is still my home, for the happiest and most productive years of my life are wrapped up with that vast ruined group far in the interior of Yucatan. And I believe that much is still to be found there that will aid in solving the baffling problem of the Mayas.

CHAPTER II

TO YUCATAN VIA ATLANTIS

I HAVE often been asked how it happened that I took up the study of the Maya civilization and made it my life-work. My answer that I went to Yucatan via the lost continent of Atlantis has usually required considerable explanation.

My forebears have been New-Englanders ever since Massachusetts was a colony. My grandmother on the paternal side was a favorite niece of General Israel Putnam — 'Old Put' of Revolutionary fame — and his traditional feat of going into the den of a wolf, killing it, and then dragging it out by the ears, was deeply impressed on my youthful imagination. There came a time when 'Old Put's' famous gesture did not loom quite so large to me, but that was after I had spent some years in Middle America and become acquainted with the jaguar.

My bent for archæological exploration and research is inherited. Among my earliest and happiest remembrances are of long walks with my young and pretty mother, who was a student of Gladwin, the famous artist, and herself an artist of ability. During these outings I often waded in the clear waters of the brooks about Athol, where we spent our summer months at the time, and picked up stone arrowheads that the sharp eyes of my mother spied out among the pebbles of the brook bottom. Later, as my legs grew longer and my vacations shorter, I spent many

of my leisure hours wandering over the hillsides and on the banks of historic Lake Quinsigamond on the outskirts of my home city of Worcester, Massachusetts. Tradition has it — and facts seem to sustain the ancient legends — that Lake Quinsigamond and the region about it was a favorite camping place for the aborigines of the section thereabout and even of distant places. Certainly that part of the country was rich in Indian relics.

Some years ago I was described in a magazine sketch as 'a farmer boy who dreamed of being an explorer.' I have not the slightest objection to being a farmer boy, but the plain truth is that I was not. There is no log cabin *motif* in my history, and it probably matters little, for I have never sought to be President. The story doubtless had its origin in the fact that an uncle of mine, Elliot Swan, had a model farm which was rather noted in those days, and the lands of 'Swan Farm' extended down to the shores of the lake. I had one friend who was especially dear to me and together we searched the farm for Indian relics, often finding stone arrowheads, and less frequently stone pestles. These treasures we carried carefully to the Worcester County Natural History Society and there pridefully deposited them. Probably they are in that repository to this day.

Later, many years later, with much less hair on the crowns of our heads, but much more knowledge beneath the thinning thatches, this same friend and I took a stroll over our old stamping ground. Uncle Elliot and Aunt Sarah, whose doughnut jar had had

an appeal in our earlier days only less potent than the Indian relics, had long since passed on. Swan's Farm as a farm was no more. But on a hillside where recent heavy rains had washed away the soil we found — what joy! — a handsome stone pestle, perfect as when it left the hands of the ancient craftsman, who knows how many centuries ago?

Through my earlier student days — I consider myself a diligent student still — my interest in archæological pursuits never wavered, although it had not as yet found a definite channel. After public school I attended business college and then entered Worcester Polytechnic Institute in the class of 1879 — ancient history, this! During my engineering course I studied Japanese with a view to going later to Japan and investigating the origin of the Ainus, that mysterious white race of the Flowery Kingdom. My reasons for failing to carry out this plan have no place in this story.

On February 6, 1883, I married Miss Henrietta T. Hamblin, of West Falmouth, Massachusetts, where my family had their summer home for many years. My wife was a school teacher, the daughter of a retired whaling captain and I am firmly convinced that the combination of whaling captain's daughter and New England schoolmistress cannot easily be beaten as wife and mother. Mrs. Thompson has endured patiently for many years the vicissitudes that fall to the lot of an explorer's wife, although, it is only fair to confess, there were some enterprises, such as diving in the Sacred Well of Chichen Itzá, of which I did not tell her until after the event.

On the grounds of our summer home at West Falmouth I had a small log cabin built to be my vacation workshop and here I used to study and write articles which were published from time to time in various Massachusetts newspapers. I was still a student at the Worcester Polytechnic Institute when I wrote here in 1879 an article entitled 'Atlantis Not a Myth,' which was published in the *Popular Science Monthly*. In this article I suggested that the mysterious civilization of the Mayas on the peninsula of Yucatan was a broken branch of the civilization that once existed on the lost continent of Atlantis when, according to the records of the ancient Egyptian priests and philosophers, it disappeared in one day and one night, engulfed in the waters of the Atlantic Ocean. I would not dare write such an article today, but as it probably was the means of determining my future career, I will quote from it briefly:

It is not to be supposed that all perished in that calamity. Long before this they had spread over the portion of the Americas contiguous to the peninsula, building cities, palaces, roads and aqueducts like those of their native homes; and adventurous pioneers were continually spreading north, east and westward, their constant increase of numbers from their former homes enabling them to overcome the resistance offered to their progress by both natives and nature, until at last they reached and discovered the copper country of Lake Superior. That they appreciated this discovery is evinced by the innumerable evidences of their works and of their skill in discovering the richest and most promising veins. Wherever our miners of the present day go, they find their ancient fellow workmen have been there before them, worked the richest

veins and gathered the best copper; and it is supposed that they continued thus till the terrible blotting-out of their native country cut short all this, and left this advancing civilization to wither and die like a vine severed from the parent stem.

Having no further accession to their numbers and being continually decimated by savages and disease, they slowly retreated before the ever-advancing hordes. Gradually, and contesting every step, as is shown by their numerous defensive works along their path, they were forced back to their cities on this continent, that had been spared them from the universal destruction of their country, where the dense and almost impassable forests afforded them their last refuge from their enemies and where, reduced by war, pestilence and other causes to a feeble band, their total extinction was only a matter of time. Such is probably the history of this lost civilization and such would have been the history of our own civilization had we in our infant growth been cut off from receiving the nourishment of the mother countries.

As this was published several years before Ignatius Donnelly brought out his now famous book on 'Atlantis,' it naturally attracted attention. It may have been a case of a fool — or a schoolboy — rushing in where an angel might well fear to tread, but at least it served to turn toward the author the attention of several influential men who were interested in archæological research. One of these was Stephen Salisbury, Jr., then vice-president of the American Antiquarian Society and prominent in the affairs of Harvard University, a close student of the Maya race in its past and present. I later learned that as a result of 'Atlantis Not a Myth,' he looked up my life history as far as it had gone and kept me in mind.

Several years later — in 1885, to be exact — I was invited to dine at Mr. Salisbury's home. The other guests were United States Senator George Frisbie Hoar and the Reverend Edward Everett Hale, both prominent in the affairs of the American Antiquarian Society and of Harvard. After dinner my host, in the simple, direct style habitual to him, informed me that the American Antiquarian Society and the Peabody Museum of Cambridge desired to have certain ruined groups on the peninsula of Yucatan scientifically investigated and that they had chosen me to be the investigator. At the request of Senator Hoar, I was told, the President of the United States had agreed to appoint me an American consul to Mexico, my post being the states of Yucatan and Campeche, in order that my plans and my position might be on a surer basis. Mr. Salisbury then asked me if I would accept the appointment. It was an unnecessary question.

It was intended and so understood by me that I was to devote all possible time to the exploration and investigation of the ruined groups on the peninsula of Yucatan and the study of the present Mayas, descendants of the ancient builders. Enthusiastically I undertook the double mission and the youngest consul in the Mexican service, his wife and a two months' old daughter, set forth upon his pilgrimage.

And that was how I went to Yucatan by way of the Lost Atlantis.

CHAPTER III

A GLIMPSE AT THE EARLY AMERICANS

It occurs to me now that I should prepare the way for what is to follow by telling something about the ancient Mayas and their descendants who still inhabit the peninsula of Yucatan.

It is the general opinion among scientists that the ancestors not only of the ancient civilized races of America, but of their wilder brethren as well, the Eskimos and the Indians of the forest and plain, were of Old World origin; that their first home was in Asia, that breeding-place of migratory peoples.

In times vastly remote, possibly even before the continents split and slid apart, they came by family groups, tribal massings and great waves of migration, skirting the mountain ranges, crossing the riverways and the tundras of Northern Asia, until they reached what is now Bering Strait and Bering Sea, where farthest east meets farthest west. Using first the land bridge, then ice bridges, and finally the Aleutian Islands as stepping-stones, as do the Eskimos to this day, they crossed over to the Western Hemisphere.

The theory that the continents of America and Asia were once joined together was advanced more than fifty years ago by Professor Asa Gray, eminent botanist of Harvard University, after his discovery that a remarkable similarity existed between the flora of North America and that of Japan, Manchuria, and Northern China. Recent researches by Dr.

Ralph W. Chaney, palæobotanist of the Carnegie Institution of Washington, tend to strengthen this theory. His study of fossilized woods over a wide area has convinced him that St. Lawrence Island, to the south of Bering Strait, lay in the pathway of a redwood forest belt which was continuous from North America to Asia in ancient times.

On this continent, under new environment, each migration spread and, as it spread, developed its latent attributes of civilization or barbarism. Thus, from out of the mist of an almost inconceivable past, the wraithlike outlines of the earliest races of America come into view, but very faintly. Then the dust of the ages falls upon and covers them. Unrecorded and unnamed, like the substance of a dream, they have passed and left no sign. Other civilized races appear and they, too, fade into the darkness of the ages, but leave behind them many traces of their existence.

The last of these earlier civilized races of America, call it Toltec if you will, left clear marks of its presence in various regions of America, but nowhere perhaps are these so clear and well defined as in Mexico and Middle America. From the dying embers of this civilization the Aztecs kindled the fires of their own fierce culture. Of all the early civilized races of America the so-called Mayas, close brothers to the Toltecs, who lived on the peninsula of Yucatan and adjacent regions, seem to have attained the highest culture.

In their driftings through the centuries, southward down the coastline and the riverways, these various migrations of the Maya people, as their traditions

tell us, suffered all things that human beings can suffer and live — hunger and thirst and the strange diseases that come to pioneers in new lands. In spite of all this, perhaps because of it, the race prospered, its religious beliefs shaping themselves and its civilization maturing, under these trials.

Toltec and Aztec legends, as well as the local folklore of the region, agree that the dark-skinned natives were led by fair men who were called *Chanes* — The People of the Serpent — who landed from a ship at *Tamoanchan* — The Place Where the Serpent People Landed — which is near Tuxpan in the Tampico area. Thus the Mayas, like the Pilgrims, had their Plymouth Rock, and the devotees of the 'Lost Atlantis' theory have one more argument.

On the peninsula of Yucatan the Mayas rested. After their age-long wanderings through the low-lying swamp lands, coast marshes, and sluggish rivers, Yucatan, with its dry limestone soil, bright sunlight and natural wells of clear cool water, must have been a welcome vision. Be that as it may, they made Yucatan their final home. Their wanderings ended, on its bosom they rounded out and crystallized the forms of their religion and of their architecture. There they perfected their civilization. They felled the forests and tilled their fields with tools of stone. From well-made roadways could be seen public buildings, stately palaces, and towering pyramids crowned by massive temples of stone. In this the golden age of the Mayas, as traditions tell us, 'The whole land was like a garden in bloom.'

They built Chichen Itzá — the City of the Sacred

Well — the great and sacred city of the Mayas, and later, Uxmal — The Thrice Destroyed — Labna, and many others whose names are lost or forgotten. The peoples that entered the peninsula in the early migrations seem to have had the same general characteristics as their descendants, the Mayas of today. They were physically rather under the medium stature as we measure today, but well-formed and sturdy. Although they paid worship to the *Hunal-Ku*, the One Supreme God, their religion was in essence a form of nature worship with the Sun and the Serpent as deities.

As to the advanced culture of the Mayas in their golden age there is abundant evidence. Their creative genius and architectural skill made their works in many ways the equal of those of Egypt, Greece, or Rome. Not long ago an architect told me that for the modern 'setback' skyscrapers of our great American cities the ancient Maya edifices had served as model. More than one thousand years ago they built roads on practically the same principle that John London McAdam evolved during the last century, roads that endure to this day. During the ages their priests worked out a calendar which in many respects is more accurate than the Julian or even the Gregorian calendar.

From these early Americans we have received at least one important utilitarian legacy. From the seeds of one of three species of native grasses the Mayas, by long-continued selection, evolved the grain we now know as maize or Indian corn. At a conservative estimate our corn crop today means

an income of from \$300,000,000 annually. In the course of an investigation conducted for the United States Government I found that there are in Yucatan nine varieties of corn, one large species with four varieties, and a small species of five varieties. It was the custom of the Mayas to plant the large species when the indications pointed to a normally damp season and the smaller species, which matures rapidly, when a dry season was in sight.

It is an interesting fact that the corn which the Indians gave the Pilgrims to plant at Plymouth derived from Middle America by a devious course of barter among the aboriginal tribes. Evidence of its exotic origin is seen in Samoset's instructions to the white men to place a herring or a porgee in each hill of corn. Without some such artificial aid the seed would not germinate in the New England climate.

As the centuries passed, the Maya civilization fell into decay until, shortly before the coming of the Spaniards, like an overripe fruit, it fell. Thus in bold broad outlines ran the history of the Maya race from the earliest times down to the arrival of the Spaniards in 1527.

Why did this civilization vanish? That is a question that cannot yet be answered with definiteness, but a number of theories have been advanced, any one of which might prove to be the right one. I once discussed this matter with a representative of the Rockefeller Foundation, which has done great work in Yucatan combating the yellow fever, and with the Yucatan director of the Carnegie Institution,

which is carrying on the work of exploration among the ruined cities of the peninsula.

The Rockefeller Foundation man believed that some epidemic, or series of epidemics, had decimated the old Maya nation and brought about its downfall. The other was certain that the decline of the Mayas was due to the high cost of living. Under their system of cultivation the land will not bear crops after being worked three years. As some of the cities were very populous, Chichen Itzá alone having a population of from 200,000 to 500,000, an immense area of corn land was necessary to supply the needs of the people. I agreed that both these things may have been factors, but adhered to the view which I still hold — the life cycle of the Maya civilization had ended, as had been the case with others before it. The old Greeks believed in the idea of the cosmic cycle, and I believe with them that it applies to peoples and civilizations.

When in 1502, Christopher Columbus, still in quest of the Secret Straits, went on his fourth and last voyage, he was carried by counter-currents to the south and west of Santo Domingo. Had the Great Admiral then shaped his course more to the west and less to the south, within three days he would have sighted the peninsula of Yucatan. The glory of discovering Mexico, the South Seas, and the countries that were to yield treasures exceeding those of the East that he sought so tenaciously, would have been his, instead of the trials and disappointments of his later days. But it was not to be.

Solis in 1506, Cordova in 1517, Grijalva in 1518, and Hernando Cortez in 1519 sighted Yucatan, trod the shores of islands and mainland, and then — they went on to their several destinies, leaving Yucatan still unexplored and unconquered.

Francisco Montejo, trusted lieutenant of Cortez, was, in 1526, given the task of making Yucatan, by force of arms, a vassal province of Spain, and by 1542 he had succeeded. Montejo sought to make Chichen Itzá, the once great capital of the Mayas, his capital as well, but therein he failed. The enraged natives resisted this desecration of their sacred city so strongly that Montejo had to retreat to T'Ho, the chief city of a minor province, where he established his government. Thus the name of this city, already a thousand years old and once the capital of the native province of *Cehpech*, was changed to Merida, and that name it has borne ever since.

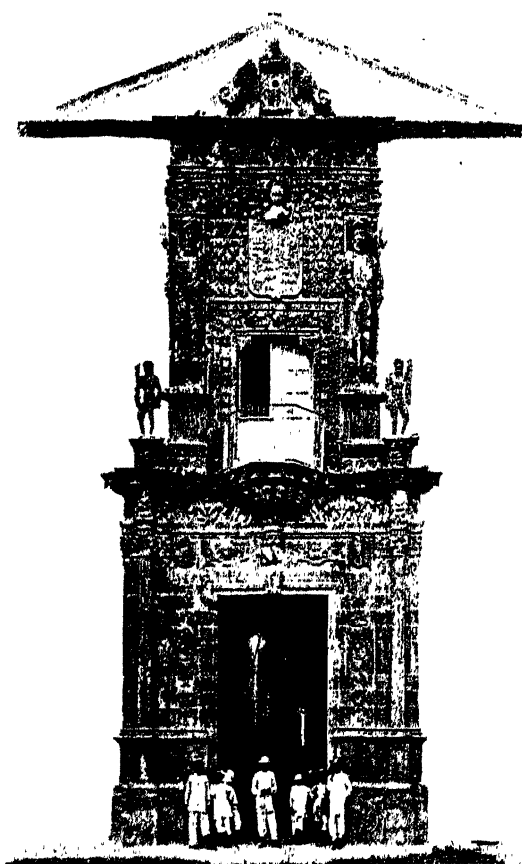
Almost the first stone building that was built after T'Ho became Merida was the palace of Francisco Montejo, Adelantado and Captain General of Yucatan. The façade of this building, erected in 1549, still stands firm; the structure itself remains habitable and is inhabited. Its front is covered with intricate and deeply carved figures.

Above the upper cornice are the arms and shield of the Montejo family, and beneath, one on either side of the wide balcony, are the full-sized figures of Spanish warriors, armed *cap-à-pie*, their stern visages showing darkly from under their visors, their hands holding huge halberds, while their mailed feet tread remorselessly upon the necks of prostrate natives,

from whose straining eyes the tears are flowing. To the right of one and the left of the other of these mailed figures are smaller figures dressed in skins, and armed with clubs. They are intended to symbolize the savage allies that aided the conquerors in their work of conquest.

Time has dealt kindly with this old relic of those days when blood, gold, and glory were so strangely intermixed. Beyond pitting the stone here and there with little hollows, softening a few sharp outlines, bestowing upon it a curiously polished surface and tinting it a sort of tan-yellow, it has softly passed the old palace by. I doubt if there is a building with a more romantic history on the continent of America. Every stone in its façade tells a story in which history and prehistory are intermingled. These stones were, many of them, taken from ancient native temples and reworked by native stone workers, who used the wooden mallets and the chisels of nephrite after the manner of their ancestors.

The great high-walled chambers once illumined by the soft light of many tapers of wild beeswax — as were the chambers and the corridors of the ancient Maya palaces and temples — are now lit up by the hard white glare of electric light bulbs. Directly in front of the great wooden posterns where once torch-bearers stood in silent array, a big arc light swings and casts weirdly changing shadows on the carved façade of the Palace of the Montejos. As we gaze at the armored figures standing inflexibly at their posts, the shadowed eyes seem to gaze at us in cold disdain, and the stern mouths seem to say, after the manner



FAÇADE OF THE PALACE OF FRANCISCO MONTEJO
Built in 1549

of the old chroniclers, '*Mudando los tiempos mudan las costumbres de los hombres*' — 'With the changing of the times, change the customs of men.'

The frank and jovial, but also somewhat irascible, first owner of what was then the newest building in this venerable city of the Americas, apparently had little opportunity tranquilly to enjoy his palatial dwelling. When not engaged in conquering the still unsubdued natives, or 'pacifying' the rebellious of both races, he seems to have been either in prison in Spain, or, at the very least, under serious charges at home.

That, however, was the common fate of the empire-makers of those times, and in spite of it all, Señor Don Francisco Montejo, the elder, Adelantado de Yucatan, etc., etc., did yeoman work in making great the very Loyal and Catholic City of Merida.

These early Spanish conquerors and pioneers did as remarkable work building cities and erecting churches and convents as they did in building empires. Even more so, indeed, for while the empires that they helped to build, like those they helped to destroy, are now fallen in pieces, yet most of the old structures of stone and lime that they built are still intact, impressive in their solidity and beauty.

The task that the pioneers began in 1528 was completed in 1928. The last of the great mounds — that of Bakluumchaan which was crowned by the monastery of San Benito, built by the Franciscan friars in 1540 — was chewed into refuse between the iron jaws of great steam shovels. On the spot where once the mound stood, public buildings were erected and a public park laid out.

CHAPTER IV

WATCH-TOWERS OF PROGRESO

SPLASHES of brown and red, brown palm thatches and red roof tiles over-sprawling white walls and loose white sand; brown-skinned people with red-barred blankets and snow-white garments, under the waving palms in the foreground and dark lines of swamp mangroves back in the distance; a town built on a big sand spit, with sand dunes on either side, the Gulf waters, green in the near-by shallows, blue in the distance, and a deep, wide swamp between it and the mainland — that was Progreso as we first saw it.

This swamp, the *Ciénaga*, as the natives call it, is over sixty miles long and quite wide in places. It has its own waterways and thick mangrove forests, strange swamp growths and strange swamp creatures that are rarely seen out of their own domain. But the unusual does sometimes happen.

Not long after our arrival, the part of the port nearest to the swamp was invaded by a horde of alligators, some of great size, that came from the deeper recesses of the swamp. Pig-sties were broken into, hen-coops were overturned, and their occupants either carried off or eaten on the spot by the armored monsters. Women refused to draw water from the wells after dark, even for the baths of their husbands, much to the disgust of their men-folk. The police were denounced as cowardly and inefficient and the authorities were called upon to act. But suddenly the

saurians went back to their swamp lairs. Peace once more prevailed in Progreso and the invasion of the alligators became a tradition.

Along the principal streets of the port were light tramways, and over them were constantly passing small tramcars, drawn by mules, and loaded with incoming goods and outgoing bales of sisal fibre. Many of these mules were handsome animals, and they seemed quite as wide awake as their drivers — if not more so.

Well-to-do people, planters, bankers, merchants, with their wives, portly matrons, sat on shaded porches in wide wicker chairs or swung in fibre hammocks, reading, smoking, chatting, with their neighbors. Their daughters, dark-eyed *señoritas*, with the clear olive skin and glossy black locks of their Spanish ancestors, stood on the balconies with loosened tresses, drying after their daily sea bath, for Progreso is a summer resort as well as the chief port of Yucatan.

As we entered the railroad station to take train for Merida, the capital, twenty-five miles inland, native vendors, mainly women, seated on low stools beside large red baskets filled with fish — pompanos and redsnappers, crisply baked — laughed and chattered as they served their hungry customers.

When I first went to Yucatan, our consulate was located at Merida while a consular agent carried on the work of our office in Progreso. Some years later, when the invention in the United States of the modern reaping machine created an enormous demand for binders' twine, a great export business grew

up in henequen, or sisal, the Yucatan fibre, and it became necessary to move the consulate to the port.

About Progreso are found interesting ruins which throw considerable light on one phase of ancient Maya life, and these I explored and studied as opportunity offered. They are stone watch-towers, probably built to give notice of the frequent incursions of the fierce Caribs, hereditary foemen of the mainland people. These towers were always built on high places where the sentinels could obtain a clear view out to sea, and they all face in the direction of Cuba and the islands of the Caribbean.

It was at Progreso — long after my arrival in the country — that I was initiated into the sport, if sport it may be called, of shark fishing.

The port was in a panic. A large schooner from Brazil had come in, reporting the captain and two seamen dead of 'Yellow Jack.' It was an American vessel and it became my duty as consul to inventory the effects of the dead seamen, see that those who still lived had proper care, food, and medical supervision, advise the Department at Washington, and cable the families of the dead men, as well as those of the living. When the sad work was finished, to take my mind for a while off these unpleasant happenings, I decided to spend a couple of days at a nearby native fishing village called Chelem, the head of which was my friend.

I was in the little palm-thatched hut that the head man of the village had given me to live in, busily writing up my notes, when the chocolate-colored face of Nabté appeared in the doorless doorway and his

soft native voice asked, 'Does Don Eduardo want to go fishing with us tomorrow?' 'Yes, when do we start?' I answered. 'When the morning star is there,' he said, pointing to a point on the horizon. I mentally calculated that this meant about four in the morning.

The dusk, which comes on so swiftly in the tropics, grew too deep for further writing, and I drew my low stool of bull's hide out-of-doors to enjoy the fresh evening sea breeze. The canoes, hollowed mostly by fire out of huge tree trunks, had all returned from the fishing grounds, and the fishermen, two by two, were bringing up their catches, which swung heavily between them on bending poles. The soft voices of the women in the wattled huts grew more animated as their men-folk came and they hurried about their household duties. Innumerable fires began to gleam on all sides, soon to die down into beds of glowing coals, over which the fish was to be cooked enough to preserve it until it reached market. After a while even the voices died away; only the distant break of the surf and the sighing of the breeze among the swaying leaves of the coco palms came to me out of the velvet darkness.

I reached 'the place of the canoes' on the snow-white beach of coral sand just as the star was 'there' and found Nabté and his companion all ready with the canoe. As we pushed off and made for the open sea, Nabté took the big oar that served as a tiller, while Ek tended the sail and coiled the line, meanwhile keeping up an animated conversation in the vernacular.

Nabté stood up and looked about him with a roving vision, and so did Ek in the bow, and just then my eye took in certain details, at first casually and then with livelier interest. Nabté had told me that we were to fish, and the hooks and lines were certainly there, but such fish-hooks and such lines! The hooks looked as if they might have been made from car couplings, and the swivel chains, attached first to the hooks and then to long coiled ropes, might easily have once been fastened to coupling pins. A lance and two long objects like overgrown croquet mallets with heads of hard and heavy wood then caught my eye. Meanwhile Nabté and Ek were putting an edge on the ugly-looking lance with pieces of a broken file.

A flood of recollection illumined my understanding. I looked at the dark features and saw clearly. Nabté and Ek were not natives of Chelem, but of the region around Cape Catoche, where in former times the constant mixing of cannibal Carib blood with that of the gentler Maya, sometimes by marriage but oftener by warfare, produced a people that feared nothing on this earth, in the sky above or in the waters under the earth, unless it were goblins, demons, and such like things.

'Look here, Nabté, what are you going to fish for today?' I asked, with somewhat affected carelessness.

'Sharks, white man, sharks; the big ones that we catch for their livers. You came over to our place once and watched us trying them out for oil, huh?'

And so I had. I now remembered having seen the big earthen pots and their seething contents, but the

fact had not come home to me until I saw Nabté and his companion close to me in the canoe, and I realized that this was a small craft in which to hunt such big game.

A black triangular fin that to me, sitting low down in the canoe, loomed as large as the sail, was slowly circling at a distance from us. Nabté at once stood up and threw a part of a tarpon toward it. At the splash the dark triangle turned quickly and came toward us. A second splash and Ek had thrown another large piece of fish, this time with one of those immense hooks embedded in it, while Nabté clutched the rope fishline.

The fin sank out of sight smoothly, without a ripple, and the canoe was twitched around so suddenly that it seemed to me my body had turned half-way round while my head was yet fixed where it was when I first saw the approaching fin. My neck ached from the shock, but I had other things to occupy my attention. The little canoe danced like a cork on troubled waters, responding lightly to jerking pulls that would have been dangerous to a clumsier, heavier craft, but even so, we were hurled and tossed and twirled about until my back was numb and my neck felt as if it were on the point of dislocation.

The events of that day made me lose all respect for bucking broncos and man-eating sharks for, although the sharks discounted all record-bucking broncos, these two Cape Catoche fishermen, with their impassive chocolate faces, managed them as if they were salmon, bluefish, or even trout. When the huge creatures, longer than the canoe that carried us,

were whirling, darting, and raging their worst, these fishermen were calmly discussing the locusts that were then devastating the growing corn crop. And then, when it seemed good to them, they quietly drew the canoe up to the maddened pirate of the seas by a hand-over-hand haul on the line, and Nabté stood up with one of the long-handled mallets. Balancing himself like an acrobat, he gave several quick, heavy blows at a certain place on the shark's head. The slate-colored monster gave one agonized convulsion that made the canoe rock until it seemed as if it must turn over and spill us out; and then it stiffened, while tremulous thrills fluttered its thick fins.

With almost incredible quickness and dexterity, the two men ripped open the livid upturned belly and with a large iron hook tore the liver out of the body and threw it into the canoe. Then, taking the hook out of the mouth, by a single twist they pushed the still quivering body away from the craft; and, while I watched its huge outlines gradually become indistinct as it sank into the depths, they prepared for the next event.

'Sharks never float when they are killed,' said Nabté; 'they sink like a piece of rock.'

Seven monsters yielded up their lives and livers on that fishing trip and then, with full fares and deeply laden canoe, we turned homeward.

CHAPTER V

AN EXPLORER 'GOES NATIVE'

'WITH the changing of times change the customs of men' — and certainly the quaint old city of Merida has undergone many changes since first I saw it in 1885.

The mocking-birds singing in the hotel courtyard and the strange cries of the vendors in the city streets broke into our morning dreams. Standing on the balcony of our chamber and looking down into the wide avenue, we saw throngs of native women with snow-white dresses and scarf-like *rebozos* thrown about their shoulders, each bearing upon her up-turned palm a shallow basket. They wore big gold earrings, long gold chains about their necks, and they walked on bare feet smoothly and swiftly to the market-place. Water-sellers were delivering rain-water to their customers from hogsheads mounted on two wheels and drawn by a small mule. There were carriers, too, bearing on their backs heavy burdens that were held in place by forehead bands of woven fibre. All passed in constant procession before our eyes.

Suddenly all the church bells of the city began to ring. Some were as sweet and clear as the sound of a golden bell. Others clashed and clanged as if a thousand lunatics were busily pounding away on a thousand dishpans. Just as suddenly all this din ceased, and from afar there came to us — long-

drawn-out and insistent — a distant sweet bugle call from the garrison.

Time was, and only a few decades ago, when Merida was fast asleep and deep in the troubled dreams of the centuries that were behind it. Cities teeming with population were in the interior, their only means of communication with the capital over rough roads hardly passable by stout carts. Large towns there were to which only mule trails and bridle paths led.

In Merida itself, if one inquired of the barefooted soldier-police where Don Fulano de Tal lived, the answer would never be, 'At 92 Sixty-First Street,'⁹ but might well be, 'He lives two doors beyond the Corner of the Elephant in front of the store of the Jumping Frog.' This was certainly convenient for the unlettered Indian whose keen eyes could see from afar the bulky outline of the elephant against the sky on the roof of the corner building and also the painted frog on the façade of the store, but it was hard on the stranger not used to this method of identifying streets and buildings.

The streets were unpaved, even the most important thoroughfares. Clouds of dust rose from them in the dry season and they were sloughs of muddy water or watery mud during the season of the rains. After a heavy downpour most street crossings were actually impassable for the shod pedestrian, but there were generally stout-bodied, barelegged natives conveniently near, who for a *medio* (six and a quarter *centavos*) would carry one safely across on his back. Ladies took good care never to be caught out on foot

during the rains, but on pleasant days and early mornings groups of charming dark-eyed señoritas, in simple costume and flowing tresses, wandered with their duennas under the shade of the stately laurel trees, listening to the music, enjoying the perfumes of the flowers, and perhaps not altogether indifferent to the admiring glances of the gallant *caballeros* who stood at a respectful distance watching them.

But now all is changed. True, the Corner of the Elephant is still there, but the eyes of that elephant now are sparkling electric light bulbs. Modern improvements are on every hand. Yet that little old Merida, still like an ancient mediæval town, with its quaint customs, its frank ways and its franker smells, came closer to the hearts of those who knew her well than the smart, cosmopolitan city of today, with its business-like methods, well-paved streets, and sanitary laws, can ever come.

We passed several months in the centre of Merida in the routine of the consulate, getting acquainted with the people and accustomed to the climate, which in winter is delightful, but in summer is terribly hot. From March to June the normal heat of the region is made greater by the burning of the clearings for the planting of the crops, mainly corn and beans. When these clearings are being burned, both sun and moon rising look like blood-red globes, and setting sink into banks of lurid, murky clouds. Sailors say that off the coast at these times the whole region seems to be aflame.

That we might live comfortably through these hot spells, I later planned a home in the outskirts where

the sea breeze could reach us quickly. On a mound, once the site of a Maya temple, we built a thick-walled, red-tiled bungalow. Around us, beyond the wide spaces of our grounds, clustered the palm-thatched *nás* — homes — of the Mayas, each shaded by blossoming trees and each with its tiny garden of flowers and fragrant herbs.

No place could have been more appropriate for the home of an archæologist and none more fortunate, for right on the spot, before the foundations of the bungalow were laid, my active work as an archæologist began, and hardly had the roof tiles been placed before I entered upon my duties as a chronicler of folk tales. While the native workmen were digging the trenches to lay the first courses of the foundation, they uncovered potsherds, fragile, half-decayed shell beads, a fragment of obsidian, and small jade beads.

Less than a month after the walls were laid, and the roof placed, came the sequel to these discoveries. The native whose duty it was to sleep in the unfinished edifice, and see that the accumulated building material did not disappear overnight, reported that the spirits of the *Aluxob* — ‘The Little People,’ who, the natives say, built these ancient structures — kept peeping at him from the outside and saying things that he could not quite understand, but which, he was sure, were gibes and threats of mischief. He was so uneasy about it that he threw up his job and let an old native who had once been sacristan to a village priest take his place.

This old man laughed at the fears of the other.

He said that he had some very powerful and miraculous amulets and charms which were capable of keeping away any of the Little People who wanted to bother him while he slept. He proceeded to dispose his means of defense in a business-like manner, in which was visible a certain strategy, and, after everything was arranged to his satisfaction, he showed his faith by rolling himself up in his blanket and hammock and calmly going to sleep. He apparently proved his case, for he slept soundly night after night and suffered no annoyance from the Little People.

He told me in confidence that he had several times heard strange sounds that were made either by *Xoches* — screech owls — or by the voices of *Aluxob*, but what he did was to make sure that the crucifix — which had been twice blessed by a priest — was in its place, and then he turned over and slept soundly again.

Before embarking on my work as archæologist-consul I had studied the available records of the Maya civilization in the possession of the American Antiquarian Society and at Harvard, and familiarized myself to some extent with the grammar of the Spanish and native languages. I purposely made no effort to learn either tongue as spoken, believing it better to acquire both on the scene.

When I went to Yucatan, I was in the white heat of enthusiasm for the work. I was physically well endowed, fortunately possessed of a rugged physique, so I decided that the best and surest way to lay the foundation for future success was to live among the

Mayas as much as possible, make them my friends, study their legends and their psychology, and master their language. I travelled widely, visiting all the known ancient cities and temple centres — there are fully one hundred of these in Yucatan — studying the ruins by day and at night, around the campfire, listening to the tales told by my Indian companions. In these expeditions I learned to travel 'light' and to live on the Indian food, and in later explorations these things gave me a marked advantage over scientists who declined to go 'native.'

The native Maya Indian and his half-breed brother, the mestizo, are good workers and good people. They are friendly and patient until aroused to wrath and then they are demon fighters, as the Spanish learned to their sorrow. Their women-folk are not abused or overworked. They perform their simple household duties and, above all, see that the man has clean clothes and a warm bath ready for him when he returns from his day's work, for chief among the Maya virtues is the cleanliness that is next to godliness.

I have said that the Mayas were conquered by the Spaniards, but their language was never abandoned. To this day the soft-spoken Maya tongue is the one most frequently heard, and outside of the cities and larger towns he who cannot talk that language is like a stranger in the land. The language, once full and fluent, is still capable of very poetic expression — a fact of which the lovers take full advantage.

A handsome young Maya girl was standing by a gate of the cottage within which I sat talking to her

father. I saw a well-set-up young Maya come up and put in her hand a young mocking-bird, saying as he did so: 'Here is a young bird that I took from its nest in a tree. Its mother is crying for it as my heart cries for thee.'

Apparently his crying had the desired effect, for they were married shortly afterward and in due course I was invited to the baptismal ceremony of their firstborn.

CHAPTER VI

KEEPER OF THE SACRED DRUM

SO FAR did I carry my determination to master the customs and folklore of the Mayas that I became an initiate of the Sh'Tol Brothers, one of the dominant secret societies of that ancient race, and I am to this day custodian of the Sacred Drum. The Mayas were famous for their guilds and secret organizations and I believe the Sh'Tol Brothers to be the last fading remembrance of some body among the ancients comparable to the Masons. The brotherhood has branches in most of the large Maya centres. Its antiquity is proved by the fact that on the wall of the Temple of the Jaguars in Chichen Itzá there is a bas-relief depicting the dance known by tradition as the Dance of the Sh'Tols.

While I was overseeing the building of my bungalow in Merida, I first became acquainted with Pedro. I had seen his house dimly through the trees and had seen the man at his work as a mason, but I had never connected the two in my mind.

The day was hot and so was I. I also had a mighty thirst and was thinking how nice it would be if a seller of iced lemonade would make his appearance. Suddenly I heard a soft native voice at my shoulder say in halting half-Spanish, half-Maya, 'Would the Señor like a *jicara* of *keyem*?' I turned to see a pleasant-looking little native woman, who shyly offered me a gourd bowl full of some creamy liquid.

Close beside her stood an athletic young Maya, who, with a sober smile, seconded her offer with a gesture. He was Pedro Chablé, and the shy, bright-eyed girl was Juana, his wife.

What they had in the gourd bowl was a very refreshing drink made of Indian corn hulled by boiling with lime, then carefully washed and ground into a paste. This paste, when mixed with water sweetened with honey, made the very refreshing drink which the Mayas call *keyem*, and the Spanish and Mexicans call *posole*.

I had already made considerable progress in learning the Maya language which is spoken today much as it was a thousand years ago, and as I handed her back the emptied gourd I repeated one of the apt and semi-poetic aphorisms for which the Maya language is noted, in appreciation of the offering. As Pedro heard me quote the Maya saying in his own tongue, the sober smile widened into a boyish grin. From that time Pedro became my firm friend and later my faithful follower.

It was on a moonlight night shortly after this first meeting with Pedro and his wife, while I was walking around the grounds about the bungalow planning the details of orchard and garden spaces, that I heard a rhythmic throbbing sound. It reached me faintly as if from a distance, and yet, as I went from one spot to another, the sound that followed me seemed to come from one place only, a palm-thatched hut, so buried in the trees and bushes that it could barely be seen from the roadside.

By this time I had become quite well acquainted

with my Maya neighbors, and relying upon my standing among them as a friend, and taking care at the same time to see that no sharp-toothed native dog was roaming about, I entered the stone-walled yard, passed along the narrow pathway and knocked at the doorway of the hut. At once all sounds ceased. The shutter of a small opening in the door swung back sharply and a dark, sullen face peered out at me. I said pleasantly, 'I thought that I heard the sound of a fiesta going on inside and I came to say that, as a friend and neighbor, I would like to do my part.'

The face disappeared from the opening and in its place came that of Pedro grinning amiably at me. He turned and said something to those inside. I heard the clatter of a wooden bar, the door opened to let me in, and then was carefully closed again.

As I entered, it seemed to me that time had been turned back a thousand years. I found myself gazing around the single room of a Maya house. The interior was lighted by several large wax candles placed on a small altar and several more of different sizes were stuck to the red earth walls by the wax of the candles themselves. Three persons, with their musical instruments, sat on the hard earthen floor in the centre of the room. Each wore a kind of regalia, a brown cloth mask drawn over the head like a hood, a headdress decorated with the plumes of the wild turkey and a scarf-like object, with symbolical figures embroidered in colors upon it, and fringed at each end with pendants of shells.

The first of the three had in front of him an object like the carved and tongued section of a hollow log.

This I was later to know as a *tunkul*, the sacred drum of the Mayas. Another held a *sacatan*, the shell of a turtle with a skin drawn over it tightly like the head of a drum, while a third fingered an instrument like a primitive flute. Standing around the players in a circle were a dozen natives, each wearing the same kind of regalia and carrying in one hand a peculiar fan made of turkey feathers with a handle formed of a turkey leg, with the half-closed claws still attached to it.

In the other hand each carried a globe-shaped rattle made of a small fruit gourd with a very intricate handle. Both fan and rattle were painted with symbolical figures and varnished with a kind of native lacquer.

Into the midst of these masked and silent figures I was gently pushed by Pedro, who then, still clutching my arm, delivered in a low voice a brief oration. The words that he spoke were, of course, in the native tongue and so quickly uttered that, with my imperfect knowledge of the Maya language, I could get only their general meaning. He was so clearly speaking in my behalf that I made no great effort to understand all that he said, but contented myself by observing, so far as I could, the effect of his words on the listeners.

Pedro was a personage in this gathering. When he finished talking there was a moment of silence and everyone stood motionless. Then the standing figures huddled together while the seated musicians, the two with their drumsticks half-raised and the one with his flute poised, as if for instant action, waited stolidly.

Suddenly the group parted, and Pedro, with much ceremony, began to make me acquainted, one by one, with all the masked figures, even to the seated musicians. I found among them several neighbors already well known to me when in their sober everyday dress, native carpenters and masons. Even the dark and sullen visage that had peered at me from the loophole in the door was changed by the magic of a laugh into the frank and friendly face of Pol Cauich, one of the best workers on my place.

With all doubts thus removed and the ceremony of introduction observed to the general satisfaction, the *tunkul* once more began to boom and drone like a mastodonic bumble-bee; the *sacatan* rapped out its notes in sharp staccato and the flute wailed softly in a plaintive minor key. The masked dancers, shaking their rattles, stamping rhythmically in their posturings and dancing, deepened the throbbing sounds by singing in unison the ancient Maya war song: '*Conesh! Conesh! Palesh shay!*' — 'Come on, all ye warriors! Come on to the fray!'

After the dance was over, the Sh'Tol Brothers, squatting in a circle around me on the floor, listened while I told them in halting Maya about the Green Corn Dance of the Algonquins and the Snake Dance of the Hopis. That was the first of many other evenings, in some of which I talked and they listened, while at others they talked and I listened. In this way I became, first a sympathetic friend, then a recognized personage with my own regalia and my fixed place at the meetings, and finally, one of the *Tatiches*, or Elders, of the brotherhood.

When I was about to leave Yucatan, I asked permission of the Sh'Tol Brothers in the town of Pisté, which is near my plantation at Chichen, to take the Sacred Drum back with me to the United States. I told them I would take it to a place where it would be preserved from all harm forever. The *H'Men* — Wise Man — said 'Let it be so,' and the ancient hollowed log is now to be seen in the Peabody Museum at Harvard. That 'drum of the gods' is the only one in this country, so far as we know.

Many of the old native customs have become, like the Mayas themselves, in a measure decadent. But the dance of the Sh'Tols and that of the Hul-ché, or Dart-Throwers, together with the songs that accompany them, are really rituals that have come down practically unchanged through the ages.

The dance of the Sh'Tols is purely symbolical. Although but vaguely understood by those who now perform it, we who study into these things find no great difficulty in making the theme clear. There is first the invocation to the Sun God and to the Sacred Serpent. Then come the War Council and the Decision, followed by the stealthy approach, the stalking of the unsuspecting enemy, the sudden surprise attack, the short, fierce battle, and the loud, staccato cries of triumph; ending with the gathering together for the celebration of victory and the division of the spoils.

About 1900 both the phonograph, then called the talking machine, and the cinematograph, known then as the kinetoscope, were astonishing the simple people

of the State of Yucatan and of Mexico. The expert who first exhibited the talking machine in Yucatan was a very intelligent young American. I saw the scientific possibilities of the invention and arranged for the personal service of the operator and of his instrument whenever I should need it.

The late Cresencio Carillo, then Bishop of Yucatan, was a man of great natural ability and considerable attainments. He was a profound student of Maya archæology and had an unequalled knowledge of the Maya language, which was almost his mother tongue. A member of the American Antiquarian Society like myself, he was my personal friend. To him I went and told him of my plan to use the talking machine in recording the Maya language and some of the most interesting folk-tales that still exist. He listened attentively and promised to help me in any way that he could.

The young expert and I went immediately to work. We retained an intelligent tinsmith who knew many of the folk-tales and spoke the language with exceptional purity. Two days after the interview with the Bishop, and while the expert and I were engaged in recording some Maya folk-tales, I received a letter from my old-time friend, Consul Cañada, of Vera Cruz, telling me of the arrival at that port of a man who had with him one of the first kinetoscopes to reach Mexico. I had already read a good deal about the cinematograph, and the idea had occurred to me of combining it with the talking machine for the complete reproduction of the Sh'Tol dance, both to the eye and the ear. I had even mentioned it to the young

man with whom I was working and we had conceived a plan by which we thought the thing might be done; but as there seemed to be no possibility of getting the two machines into conjunction, there in far-away Yucatan, we agreed to regard it as only a dream that could not be realized.

But Consul Cañada's letter changed the aspect of things completely. After consulting with my friend I kept the telegraph wire to Vera Cruz and Merida busy until I had the promise of the kinetoscope man to bring his machine to Merida. Then I took the Sh'Tol Brothers into my confidence and we rehearsed the affair till it went off with perfect smoothness.

At last the day came when all was ready. The Sh'Tol Brothers were seated on the smooth green lawn of the bungalow under a tall coconut tree while the two operators, each expert with his machine, occupied their respective positions. The weather was perfect. When I gave the signal, the Sh'Tol Brothers arose and commenced the measured dance with the posturing and the singing. The *tunkul* commenced to drone, the *sacatan* to rattle, and the flute to give out its plaintive wail. Just before the dance was finished, a brief wind caused the long graceful fronds of the cocoa palm to bend for a moment over the dancers. The effect was most artistic. After all was finished, I regaled the Sh'Tol Brothers with a feast of *keyem*, sweets and bananas.

The cost of all this had been more than I could prudently afford, but money is of value only as it enables one to do what he really wants to do. And when I think of the delight of that sunny afternoon

and the pleasure that I enjoyed when I saw and heard the reproduction, I am sure it was well worth all that it cost me.

Having accomplished my purpose, I laid the developed film and the cylinders, blank no longer, safely away until the time was ripe to use them. That time came when I was elected a delegate to the International Congress of Americanists at New York in 1902. At that session I exhibited my Sh'Tol records, which were probably the first in which the phonograph and the cinematograph were coördinated in this kind of scientific work. After reading a paper on the colors and pigments used by the ancient Maya artists in the mural paintings on the old temple walls, I had the auditorium suddenly darkened. There was then thrown upon a screen the life-size reproduction of one of the few ritual dances of the ancient Mayas that have come down from prehistoric times. At the same time the talking machine, properly synchronized, gave out, fully and clearly, the words and tones of the ritual song that accompanied the dance.

In the olden times the *sastun*, or magic crystal, was potent with the *H'Mens* — native wizards and doctors — of Yucatan. Today, though the white men rule the land, it still is potent in the shadows and darkness.

I stood at the corner waiting, watching. The Sh'Tol brother came as silently as a shadow. Close to my side in the darkness I heard him say, 'It is time, Brother! Let us go.'

Furtively we stole along the narrow lane that led

from the corner of the Amapola, until we reached the palm-thatched hut wherein the *H'Men* was to do his work. Silently we pushed aside the frail gate of entwined withes and entered.

The Sh'Tol brother led me by the hand as if I were a blind man. Beneath the shade of a great tamarind tree, deepened by the cloudiness of the heavens, a score of native men and women crouched in silence. Inside the hut, disclosed by a faint candle light, several female forms were moving about. From a hammock swung in a corner came the sound of moaning and babbling, the voice of a woman, fever-stricken and delirious. The night owl, *xoch*, flew over the house and screeched as it passed. A shuddering and a muttering went through the shrinking group under the tamarind tree.

Then the *H'Men*, the wizard most famed and feared throughout the whole region, rose to his feet. 'It is time,' he said briefly. His tall, gaunt form and strongly outlined face fitted his mission and his fame. He spoke slowly and distinctly and in the native tongue: 'Brothers, when one of us is sick what must be done to cure him? The white men's doctors may be wise in their way, but their ways are not our ways and their potions are not for us Indians. Did the white men's medicine save Pol Cocom, Xbit Ceh, or Us Caamal, or do I dream that we held their death feasts? Yet they had the white men's doctor and took his medicine till their bellies puffed up like a dead *huh* — iguana. No, Brothers, let the white men have their own strange ways and let them do as they please, but let us keep to the ways and the knowledge

that our fathers left us. Then if we die it is because Fate has sought and found us, because our time has come and not because we are poisoned and rotted by strange drugs. Let us see who is sick, for time passes.'

The *H'Men* led the way into the hut. He took a candle, and, shading the light with his hand so that it fell full upon the face of the unconscious sick one, he gazed long upon her. Then he gently opened the twitching eyelids and smelled the hot breath that came panting from the heaving breast. Without saying a word or moving a muscle of his face, he slowly moved his body till he faced the throng and his black eyes searched every face before he spoke a word. Then he spoke and every word was as cold and clear and as sonorous as a bell.

'This is not a sickness. It is the work of a black hand and the hand is that of a woman. The woman, shall I seek her with the *sastun*? Beware of the *sastun*! It throws light on the guilty heart, but it stills it forever. Shall I use the *sastun*, X'leut?' and he fixed his eyes, now dark and glittering, on a comely native woman in the family group. 'Speak, girl,' he said harshly, as he grasped the magic crystal.

'No! No! No! Father, no!' she cried, sobbing. 'I did not wish to kill her, only to pay her for trying to rob me of my lover!' And she fell in convulsions on the floor.

The fever plant, with its great petals of snowy whiteness, loaded the air with the heaviness of its strange perfume as we went out into the cool night air. The withe gate closed silently behind us.

CHAPTER VII

INVOCATION OF THE RAIN GOD

BISHOP DIEGO DE LANDA and those who followed after him converted the Mayas to Christianity, but failed to wean them entirely from their old pagan customs and beliefs. In the little village chapels of these Indians the saints of the Church are merely old gods with new names, a phenomenon not at all confined to Yucatan. In times of stress the Mayas turn frankly to the ancient deities which still persist in the racial memory. The authorities, unable to prevent the carrying out of certain pagan rites and observances, perforce wink at the practice. Under the sacred *ceibo* tree, when Venus, the season planet, stood at a certain point in the heavens, I have witnessed strange things.

Rain was needed. Much rain, enough to soak the ground for planting and to keep it sufficiently moist for the growing of the *milpas* on the sun-parched plains of Yucatan. But every day the sun glowed like a great copper ball, against a sky like an overturned basin of brass.

The people of Pisté, corn planters all, were getting desperate. As a last resort, the image of San Isidro was taken from its niche in the little chapel on the great stone mound, and exposed for several hours to the baking rays of the sun, in order that the Saint himself might feel the need of rain and by means of this gentle hint be induced to obtain the great boon

for the pueblo as well. They who had the matter in hand put the image out on a big flat stone block, a portion of what was a temple, in front of the little chapel, and then, bareheaded, squatted reverently around it, confidently awaiting results.

Time passed, the rock became hot, even to their horny soled feet, while the salty sweat drops drifted into their eyes and stung them. At last Old Bat, the sacristan, who stood comfortably waiting within the cool shade of the palm-thatched chapel, was pained to see the irreverent manner in which the Saint, placidly gazing full-faced into space all the time, was being packed back to the chapel. Gravely indignant, he arranged it once more in its accustomed niche.

The next day there was something in the air, not rain, or signs of it, yet a something that to the knowing ones was a hope, and a half promise that the needed moisture might soon reach them. It was Old Bat himself who voiced these hopes and promises. Old Bat is a very religious man, as befits the sacristan of the chapel, wherein the very miraculous image of San Isidro, the patron saint of the village, is placed on high. In these distant native pueblos the sacristan is a personage, next only to the priest, whose representative he is in certain small ways. But Old Bat is also broad-minded. He, when the good old priest is absent, acts as sacristan to those little secret bands of Maya natives, who perform certain rites and practices that are more interesting to the ethnologist and anthropologist than acceptable to Mother Church.

Since early that morning, long before daybreak, Old Bat had been going from house to house, and in

each house, as he left it, was heard an increasingly busy hum. The women were grinding corn on the stone mills, and the men, after carefully cleaning their long shotguns, started for the woods.

They went deep into the forest until a certain secluded spot was reached, beneath a large *yaxché* — *ceibo* — tree whose dense foliage had resisted even this terrible drought, and there each took up his appointed task. Some cut forked poles and pointed the butts with their sharp machetes; others cut straight ones, and, with stout withes binding them into bundles, carried them up to the base of the bit tree. Over the *yaxché* grew many vines, long, slender, and as pliable as ropes. All these were stripped off save those on the side of the tree facing the east. These were left in place hanging as they grew. All around the *yaxché* tree the ground had been cleared as clean as a ballroom floor. In the centre of this smooth cleared space the men drove the pointed butts of the forked sticks deeply into the ground and set the straight poles resting in the forks, bound lengthwise and crosswise with the flexible vine of the *anikab*, as only the jungle Indians can, until there was formed a high stout platform, the sacred *canché* of the Mayas.

While all this was being done, others had gone still deeper into the forest and the distant reports of their guns were heard from time to time. Soon the hunters came straggling in, one with a fat buck deer, another with a *javali*, or wild boar. Several brought as their game large and plump wild turkeys, together with fruits and grains from forest and field. Holes were dug in the ground and filled with red-hot embers and

the game was cooked, *pibil*, after the native style, handed down through countless generations.

Then others appeared, bearing on their heads empty tubs, hollowed out of wooden logs, and native pails of *chunnup* bark filled with a liquor made of honey, water, and the bark of the *balché* tree, fermented and strangely intoxicating. All that night they worked incessantly at their tasks. When the morning came the village itself was silent; all the women were in their houses behind closed doors, fasting and preparing for the feasting that was to be after the coming of the rain. The men, even to the half-grown male children, were under the *yaxché* tree, fasting and silent, awaiting the signal of the priest, the priest of the Rain God, to whom in their great need these people turned, as in the olden times, a thousand years and more ago, their forebears did, with strange prayers, rites and offerings.

The *Mex* boys and the *Chablés*, they who were once made to pass all one night in a tree by a band of angry wild pigs, were hugging their knees in the shade of the bushes. So too were Manuel, the jaguar-killer, and little Juan Ek, the hunchback, who kills the biggest rattlesnakes by jumping like a deer on their heads with his feet and crushing them to death. Big Tomas, who only last season killed a red jaguar alone and armed with only a broken-handled machete, conversed softly with Fermin Tus, who lost his fingers on one hand in the fight with the Rebellious Ones. Old Bat, gravely important, headed the crouching watchers.

Sometime during the night, no one seemed to know

just when, strange faces were seen among the busy workers. The faces, and the figures that carried them, were pure Maya. There was no more doubt of that than there was that the soft quiet words the figures used from time to time were of the *Mayaual*, as pure and undefiled as it can be after long centuries of occultation and misuse. The old man, with the shaggy head and the lean flanks of a lion, was Nas Poot, the famous *H'Men* of Ebtum, a wizard who sees strange things through his *sastun*, and does stranger ones, through the powers he has which are not those of common men. The other strangers were those who accompanied him as practiced aides in all things that could help. They were needful in the awful ceremonial, the invocation of the Rain God.

At last all was in readiness. The stout platform was bending under its burden of well-cooked, steaming game. Indian corn, calabazas, fruits, and even bright-hued flowers, were among the offerings on the platform. The appetizing odors came gratefully to the hungry, fasting throng.

All about, under the trees and around the borders of the clearing, the men sat in groups of twos and threes. Each group was quietly chatting in subdued voices that hardly rose above the sound of whispers, chatting and whispering softly; yet the eyes of all were constantly fixed on the silent priest. A little apart, on a broken column, fit emblem of those who made it, Nas Poot, the priest, sat, as silent and as still as the column on which he rested. The old man seemed to be withdrawn into himself. His features were as fixed as if carved in stone, and his eyes, slow

moving and strangely bright, were the eyes of a mystic.

What were his thoughts as he sat there communing with himself, as utterly alone as if he was before the altar of a lofty temple, and those about him were crouching on the plain below? Did he but know it, there was much food for thought in what was going on beneath the *yaxché* tree. Could he, the priest of *No Hock Yum Chac*, the Rain God, use his *sastun*, or magic crystal, as his forefathers were said to have used it, he would have seen through its clear faces the ancient workings of the rite. He would have seen the great abyss, the sacred well of the Itzaes in that great silent city of stone, where the Rain God lived, as his ancient priests well knew and recorded in their wise sayings.

He would have seen the priestly procession, with living victims and rich offerings, passing between the Snake-Head columns down the steps of the temple of Chichen Itzá, the ancient city now silent in ruins, and, to the music of the sacred drum and whistle, winding along the Sacred Way. As they approached the Sacred Well, the droning beats of the *tunkul* and the shrill notes of the whistles would have ceased, while the High Priest, from the platform of the stone shrine on the brink of the well, made an invocation to the Rain God. In slow-spoken words he would have sought to appease the offended deity, that the needed rain be once more allowed to quench the thirst of the sun-parched earth and let the green things grow that give life to the suffering people.

Then, as the High Priest finished, great clouds of

incense would have risen heavenward from the shrine and from the platform beside it, as, with solemn rites and prayers, the living victims, beautiful maidens and captive warriors of renown, were tossed into the still, green waters, with offerings of food and drink, jewels and objects of great value.

Then the fasting devotees would have dispersed to their homes to feast and prepare for the grateful rain that never failed to come — so, at least, it has been recorded. Did this strange old man, sitting apart, know aught of this, much or little? Who knows?

The sun had risen higher in the heavens before Nas Poot seemed to awake from his deep reverie. Then he half stood up, gave a keen, quick glance around the heavens, then down at the watchers, and nodded his head.

At once five men rose and brought out from the line of the watchers five frightened boys. With great ceremony they tied a boy to each of the four posts sustaining the food-laden platform, while the fifth and largest boy, bound like the others, was placed in the centre. The priest then took a gourd filled with the sacred mead, *balché*, and drank it at a draught. Each boy was given a smaller share, and after them the rest of the assembled ones each took a deep drink. It was not permitted that anyone who had not partaken of the sacred liquor should witness the ceremonies or listen to the invocation. Neither can women ever take part in it or even witness the ceremonial. But once only in the memory of man has this rule been broken, and then only by a white woman of a foreign race. But that is another tale.

While the fasting, thirsting crowd was drinking freely of the *balché*, the priest gave the signal, and the four boys tied to the posts each set up the rain cry of the frogs, the larger boy in the centre giving the booming cry of the giant toad. At the same time the 'Bringer of the Winds' alternately pulled and loosened the ropelike vines left growing on the eastern face of the *yaxché* tree. This made a sound resembling the rushing and the swirling of great winds. The 'Keeper of the Lightning' had two flat wands of white wood that he brought together with a clash of thunder. While this went on interminably, the Priest of Ebtun was praying softly, volubly, in a strange, monotonous voice, with words unintelligible to those who listened. His eyes were fixed and bloodshot and at times his features seemed ecstatic, almost convulsive.

Was all this merely posing for effect? If so, it was marvellously well done. Suddenly he raised his head from the attitude of prayer and cried angrily in a hoarse voice, unrecognizable as his:

'Some one has left his place and the spell will be broken unless he is brought back before the sun moves twice its length.'

There was a stir among the watchers, angry whisperings, and instantly two natives started off to look up the offending one. They found him. It was Mel Tun, the laziest oaf of the village, a fat, good-natured, good-for-nothing glutton; his feeble will could no longer resist the tempting odors of the steaming food on the platform. As he was on the outer edge of the watchers, he easily got off unseen, and, as he fondly

thought, unnoticed. He went to his house by a back path through the woods, thinking to eat a good meal and get back by the same path, unnoticed and with a full stomach. Poor deluded Mel Tun forgot the supernatural powers of the Old Man from Ebtun. He was just about to take the first bite of a deliciously toasted *pibiluah* when the angry trackers found him.

Without saying a word, they dragged him out of his house and gave him a good beating in the presence of his wife and the other jeering women of the village. After this was done, and well done, they took him, with empty stomach and smarting back, right through the whole village, before all the people, up to his old place on the edge of the clearing.

There he sat, not daring to move, lest the priest cast upon him some specially dire incantations for his dereliction in this serious matter.

All the time that this was taking place, the young boys, bound to the posts like victims for a sacrifice, were crying like frogs and toads, the Bringer of the Wind and the Keeper of the Lightning were interminably performing their parts, without food and water; only the *balché* liquor was, at stated times, brought them to drink, and it kept them up to their duties. Every time the boys flagged in their cries, or the Bringer of the Winds and the Keeper of the Lightning became slower in their movements, swift lashings with the long leaves of a nettle-like plant aroused them to renewed effort.

For an hour the priest and his helpers prolonged the rites of invocation. And now something strange happened. In the east, where for weeks the sky had

been like a placid sea of molten brass, black clouds appeared low down on the horizon. They rose rapidly until they met and hid the sun. A strange moaning sound was heard and then a rush of wind came that made the treetops bend and the boughs lash each other like whips. The torn and crumpled leaves of the *yaxché* fell in green heaps on the offerings beneath.

The lightning flashed and the thunder roared until the solid earth trembled and the offering-laden platform groaned. Then the heavens opened and the rain came down in torrents. The joyous crowd let the great stinging drops beat on their upturned faces in sheer joy and gladness. The women of the pueblo then came up to drink, not of the *balché* — that was denied them — but of the drink *sac-ha*, made of corn in the milk and wild honey. Then the people of the pueblo went back to their homes, to feast and rejoice until next daybreak.

Great was the *H'Men* of Ebtun, Priest of the Rain God.

It was several years before there was occasion for another call to the Rain God. The abundant rains had produced good crops and the plantation Chichen had by this time become well established. The routine gave employment to all who needed and desired it. The grasshoppers had departed and all seemed well. Then came the lean seasons when the rains were scant and infrequent. The crops were bad, the cattle gave no increase and the pigs died of distemper.

The people began to look at each other questioningly, and held council in groups when no *cura* or

strange visitors were around. I saw these actions and knew that a *Cha Chac* was fast approaching. I told my daughter Alice, already an artist, what I foresaw, and I said that I was going to try to have her present when the call did come so that she could later make some illustrations of the rites for me. It would be difficult, I knew, for the old *H'Men*, my friend, had passed tragically on to his home in the Sun (if his oft-expressed desires were granted), but I hoped in some way to bring it about.

I was called away on an important matter and stayed several days longer than I had expected and, as luck would have it, the *Cha Chac* occurred during my absence. The messenger came up to notify me of the time and place and, on being told that I was absent, said to my daughter, 'That is very bad, for tomorrow is the *Cha Chac* and he ought to be there.'

'Never mind,' said Alice calmly, 'I will be there in his place. He wanted me to go and I will surely be there.'

The simple native messenger, nonplussed, opened his mouth to speak, thought better of it, and went on his way.

At the given time and appointed place, my daughter, accompanied by her favorite servant, a bright-eyed Mexican woman, appeared before the assembled natives crouching under the sacred *yaxché* tree. As she approached, the *H'Men* jumped up in a rage and looked as if he was about to pounce on her like a wild animal.

He was new to the people, had come from a distant pueblo, and when he saw a woman appear, and a

white woman at that, he said it was a thing unheard of for a woman to be present at a *Cha Chac*. She should be driven off at once, and he was about to do so when some of the Indians stopped him.

'You are new to us here and so you do not understand. She is the daughter of *Yum Dzul*, the White Master, and he is your equal if not more important than you. If he said that she should be here in his place while he is away, so it shall be, *H'Men* or no *H'Men*.' This they told him plainly.

The Wise Man was no fool. He could see a light when its flame was held close to his nose, and saved his face gracefully by saying: 'It is well, but if she stays she must drink of the *balché* like the rest who witness the rite.' And he insisted on this. My daughter agreed, received the full gourd bowl of the meadlike liquor, then, after taking a sip of it, passed it on to her servant, saying, 'You drink the rest of it,' and the woman obeyed.

Thus everything passed off well. Alice had the experience, unique for a woman, saw the rite and got the needed data, and all was tranquil except the stomach of the poor Mexican woman.

'That drink was certainly not like *pulque*,' she confided to me afterward, rubbing her stomach reminiscently. But it was all in the interest of science.

CHAPTER VIII

THE MIRACLE OF T'HO

THE day in June had been a busy and a tiresome one for me, spent in the Government palace and the Treasury building and among the merchants in the streets, digging out reluctant facts for a consular report. The day's work finished, I relaxed, swinging comfortably in my fibre hammock under the cool shade of the wide tile-roofed corridor, reviewing the events of the day and enjoying the unaccustomed sight of heavy black clouds piling up in the sky to the east of the bungalow.

Gradually the sound of cries and exclamations came up to me, joyous, but subdued at first, then increasing in volume. They came from everywhere about — from near-by gardens and houses, from the streets below, and finally from my own garden as Pedro Chablé rushed up. Pointing to a thick cloud of small winged insects that seemed to be weaving and dancing in a flying maze a few feet from the ground, he called: 'See, Don Eduardo, the *sh'mataneheelles* — winged ants — have come at last. Thank God, the rains will soon be here.' Then he went off saying light-heartedly: 'I must get my seed corn ready for the planting.'

I turned over in my hammock and through half-closed eyes, looking cityward, I could see the winged ants, the harbingers, as the Mayas know, of the summer rains.

True, the air was as yet the same. Within offices and closed chambers it was still like the atmosphere of a drying kiln, such heat as makes pine boards sweat drops of pitch through the paint and varnish and dries up human perspiration on its way through the pores before it has a chance to perform its mission of cooling the parched skin. But the end was near. A soft wind came up and crooned among the needles of the tall marine pines, making them respond so musically that the faces of those who passed straight-way upturned, like those of the old nature-worshippers. Almost before the wind song had commenced, beads of perspiration appeared upon the upturned faces as if a fine mist had fallen upon them.

Sweat drops lay thick upon the round head and fat jowls of Sebastian Yarondo, capitalist and banker, as he stood for a moment in front of his barouche looking at the singing trees. Mopping his face and the deep fat creases at the back of his neck with a handkerchief nearly as large as a tablecloth, he said in his quick Old-Spain way, half to his coachman and half to himself: '*Vaya! Gracias a Dios! ya en fin podemos sudar y dormir, como es dada.*' — 'At last, thank God, we can sweat and sleep as man should do.' Then he ponderously entered his carriage, and was driven home to his bath and a fresh change of clothing before the meeting of the directory that afternoon.

The soft breeze that crooned in the treetops now began to hum in a higher key. Fleecy clouds, torn white masses, scurried across the blue of the sky. Light wind-gusts came laden with strange rain smells, dry herb fragrance and damp earth odors. They

were followed by fiercer blasts that raised the dust in swirling clouds and flung it into open doorways and slamming windows. Hats flew and disgusted owners chased them. Street boys shrieked and whistled. People laughed excitedly and the birds in the swaying trees chattered and warbled until it seemed as if their little throats would burst.

Dark clouds heaved up from below the horizon, black and heavy, tier upon tier. Doors long unused to closing were slammed noisily and window-shutters, their rusty hinges creaking, were drawn together while pale yellow gleams of lamplight came from the lattice-work and open crevices.

The wind calmed and all the din ceased. The air was clear of dust, and the fast-dulling yellow of the daylight outside seemed as strange as the lighter yellow of the lamplight within. Slowly the clouds drew nearer. Low and sullen rumbles came from deep within them. A few heavy drops of rain splashed and raised tiny dust-clouds as they fell.

Then, with a crash that seemed to make the whole earth shake and quiver, the heavens opened and sulphurous tongues of darting flame reached earthward. The rain fell in big-dropped torrents, warm at first and turbid, then cool, fresh, and crystalline.

Juan Tun, the guitar-player, with his calm old sightless face upturned to the grateful downpour, gave thanks to God in his slow quaint way: 'Thanks, O Jesus Master, and the Virgin Mother! Thy mercy is great to let us of this wicked world once more feel the cooling drops.' Turning, with the water dripping from his long locks, he went into his little hut, and

soon the musical chords of his beloved guitar gave second voice to his prayer.

Then the growing roar of the steady downpour drowned all other sounds. No longer drops of water, but silvery sheets, beat down on roof and wall. They clamored at the doorways and pounded at the windows. The streets were waterways, and all their meetings, lakes. The torrential rains had come in the fullness of their power. The land, with all therein, the fatness and the leanness, the virtue and the vice, bowed willingly before them.

If what Leandro Poot, a son of the great Maya war chief, said was true, and I think it was, Merida should be as grateful to the winged ants as Rome was to the geese, and for similar reasons.

It was during the last great rebellion of the Mayas against the whites in 1847. The advancing hordes of *Sublevados*—Rebellious Mayas—had reached Acanceh, a large town less than two hours' march from Merida, and there encamped for a day of feasting and celebration before marching to seize and loot the Capital. The *Sublevados* seemed about to make good their threat that they would drive the whites into the sea to feed the sharks. Despair settled over the city, for escape was impossible.

Morning came after a sleepless night filled with black forebodings. The sun rose high, and still the sharpest ear could not detect the high-pitched yells and cries that ever heralded the advance of an Indian horde. At last straggling fugitives came into the city from their hiding-places in the outskirts of the captured town, Acanceh, and the tale they told was

strange and incredible. 'The *Sublevados* are going back from whence they came' was the substance of their report.

Finally messengers from town officials who had escaped the enemy and, hidden, had witnessed what had happened, confirmed the extraordinary tidings. The great army of Indians had dissolved into vanishing bands, returning to the distant regions in which they had their lairs. Merida was safe once more.

'A miracle! A miracle!' cried the devout. 'The Virgin Mary has interceded for us with her Son. Merida is saved.' They knelt in prayer at the street-corners, in the public market-place, in all the plazas. The bells rang out their loudest while chants and songs of praise arose from the crowded churches.

A miracle had indeed happened, but, as in the case of most other miracles, it appears to have been explicable by the fortunate operation of the laws of nature.

The Maya is first of all a planter, a planter of corn. I have good reason to believe that in long-past ages some prehistoric Burbank among the Mayas, by rigorous seed selection, evolved from a grass plant the grain known to modern man as maize or Indian corn. From that day until this the Maya has carefully noted every condition, every varying phase of nature that reacts either for or against his crop of corn. He has observed that when the winged ants, the *sh'matane-heeles*, commence to weave their love-mazes in the air, the time is ripe for man to prepare his ground and plant the seed for his future crop. That fact has become so embedded in his brain cells that neither wars

nor weddings can dislodge it from his consciousness.

And so the words of Leandro Poot, son of the war chief of the Mayas, give us the key to the miracle.

'These words, O White One, are true words, for I, Leandro Poot, speak them to you and I know of what I tell.

'When my father's people took Acanceh they passed a time in feasting, preparing for the taking of T'Ho [Merida]. The day was warm and sultry. All at once the *sh'mataneheel*s appeared in great clouds to the north, to the south, to the east and to the west, all over the world. When my father's people saw this they said to themselves and to their brothers, "Ehen! The time has come for us to make our planting, for if we do not we shall have no Grace of God^{*} to fill the bellies of our children."

'In this wise they talked among themselves and argued, thinking deeply, and then, when morning came, my father's people said each to his *Batab*, "*Shickanic*" — "I am going" — and in spite of the supplications and threats of the chiefs, each man rolled up his blanket and put it in his food-pouch, tightened the thongs of his sandals, and started for his home and his cornfield.

'Then the *Batabes*, knowing how useless it was to attack the city with the few men that remained, went into council and resolved to go back home. Thus it can be clearly seen that Fate, and not white soldiers,

^{*} The Mayas among themselves call *Ixim* — Indian corn — 'The Grace of God,' for, they say, this grain was a gift of God to them that they might make of it their bread — *uah* — and drink — *keyem* — and that from them the knowledge of the grain and its use spread to other peoples.

kept my father's people from taking T'Ho and working their will upon it.'

There is another winged insect whose miracles are those of destruction and whose visits are not so welcome as those of the *sh'mataneheeles*. That is the locust.

Low down on the eastern horizon a strange-looking cloud rose rapidly. The rays of the hot sun of the tropics beat against it and were thrown back in countless prisms of shimmering light, and yet the cloud itself was of a dead dark color.

Pedro Chablé looked up from his task of sharpening his machete with an old file and his gaze grew as dark as the cloud.

'These cursed creatures ruined my father while I was yet a small boy and now it seems that they have come to ruin the son of that father,' he exclaimed, as, with a despairing gesture, he shoved the knife into its sheath. For a time, given over to bitter reflections, he silently watched the ever-growing cloud. Then, slowly, as one who calls up old-time memories, he told this tale:

'When these insects first came, I heard my father say that the people welcomed them as a gift from God, for they came that time on New Year's Day and each one bore on his back, so the priest said, the image of the sacred chalice, the vessel of our Lord. The great doors of the churches were opened and the bells were rung as they are only rung on the very holy church days and times of great rejoicing. The priests came out in their vestments to receive the little flying

messengers bearing God's token. Some of the wise men of the land told that on the shining gauze of the under wings were writ, in dark line and a very ancient tongue that they understood, these words: "We come at God's call, ninety-nine at a birth. Were it one hundred, we would destroy the world."

'When the first clouds of them came, the crops were already grown, the corn was doubled in the ear and the black beans harvested, and so they did no harm; they ate the forest foliage, the weeds in the fields and the grass by the roadside. One day, when they crossed the highway between Valladolid and Merida, all traffic was stopped until they passed by, for no man dared pass lest the hoofs of his laden mules crush the sacred image of the chalice and so bring upon his owner the terrible wrath of the Lord.

'One bright day, when the sun had dried their wings of the morning dew, the whole cloud rose in the air at one time and the noise of their wings was such that the voice of a man could not be heard by one at his side.

'They rose high in the sky and were lost to the sight in the distance, and we were sad that these messengers of the Lord had departed. We did not know them then as we do now. Who could foresee that when they lit on the ground, as we thought, to rest and feed on the weeds, they were laying their eggs in the soil? But the time came when we did know them, first when the eggs hatched into worms with big heads and jaws, covering the fields and gardens until nothing could be seen but moving yellow forms that ate and ate until no small green thing was left. Then the

worms turned into little locusts and they too ate and ate and reached for all the green things that the worms could not touch. They left the gardens and fields as bare as if newly burned for planting, and then they grew and grew until they too were big and bore the image of the chalice, and then they dried their wings and flew away to eat up the leaves of the forests and lay bare the orchards until the whole country was as bare and dead as when the *X'Mahail*, the Great Drought, was on and the people had to eat the pith of trees and the roots in the fields to keep life in them.

'Then the *padres* said that the Devil had deceived them all, God's servants and the learned men, by making use of the image of the sacred vessel to protect his own. We tried to save our crops, but it was too late.

'We killed as many of them as we could, but they came down from the clouds and ate us up, us and our neighbors. We were forced to go far away from home and among strangers to gain the food that our families must have to live upon.'

Even while Pedro was talking, the cloud had grown until it overshadowed half the heavens. Guns were being fired, tin pans beaten, and church bells rung, not now in joyous welcome, but with an angry clang, to drive away by noise the little winged demons.

Pedro, with a last impotent discharge of his gun, shook the still smoking weapon defiantly at the oncoming cloud, and then, with the sullen impassivity of his race in the face of misfortune that cannot be averted, stood like a statue watching disaster.

Women rushed wildly about, covering the wells to prevent pollution, and the air was filled with an acrid odor, while the droppings borne by the wind fell from the sky like a thick shower of mustard seed. The coco palms, moved softly by the afternoon breezes and slowly waving their long green leaves, were bent almost to breaking by the weight of the locusts, while the whole air vibrated with a strange hissing sound and pieces of cut leaves fluttered to the ground.

As Pedro leaned on his gun, heavy-lidded and sullen, his wife Juana came up, the wild grace of her form emphasized rather than hidden by the native dress, and her dark hair covered under her blue *reboso*. Her beautiful eyes grew troubled as she saw the despair of Pedro, and, placing her clasped hands on his shoulder, she looked up into his face with loving sympathy. Before her glance his sullenness melted away.

‘After all,’ he said, ‘the sun still shines and things will grow again.’

CHAPTER IX

LANDING OF THE CHANES

IN THE legends and folklore of a race the history of the race is written if we could but read it. It is true that the grain of fact is generally hidden beneath a wealth of imaginative chaff, but it is there nevertheless. During my long career in Yucatan I was fortunately able to prove the truth of certain tales that had passed as legendary for generations and I will touch upon these matters later. But back of tales such as these are many ancient Maya traditions, none the less fascinating because they are as yet incapable of proof, and obviously containing the elements of history. Among these ancient legends none is more alluring to the student, nor more baffling, than that which concerns the landing of the *Chanes*.

In a previous chapter I referred to the fact that the Mayas had their Plymouth Rock as had the Puritans who followed them to the continent of America many centuries later. That is, the legends of the primitive races of Yucatan and of portions of Mexico tell of the coming in ships of a fair-skinned race of men who became the rulers and the leaders of the dark-skinned aborigines. To explain this occurrence as the arrival of some of the survivors of the catastrophe in which the storied 'Lost Atlantis' disappeared is unsatisfactory to the scientific mind, and this is putting the matter mildly. The Atlantis

theory itself remains to be proved. But a tradition so widespread and a legend so persistent must have some basis in history, and it is legitimate for us to hold as probable that at some time in the remote past a group of people representing a civilization of which we have lost all trace made their influence felt upon the races indigenous to Mexico and Yucatan.

I wish that I might impress upon the readers of this book the fact that, despite all that is said, done, or written to the contrary, most of the sciences are today in a state of flux. If this be so even with what we have hitherto regarded as the 'exact' sciences, how much more it must be the case with those which are acknowledged to be yet in their swaddling clothes — archæology, ethnology, and the other 'ologies' that follow in the wake of anthropology.

Time was — and that in the not distant past — when six thousand years ago was considered to have been the Alpha of the earth's life. Then came an upheaval of these supposed facts or fixed ideas. Only a few months ago George Grant MacCurdy, professor of anthropology at Yale, showed me an arrow-point of crystal taken by him from an Old-World deposit of artifacts, objects fashioned by human hands at least one hundred thousand years ago. Still more recently — and this time on our own hemisphere, almost at our door, in the gypsum deposits of Nevada — have been found arrow- or dart-points of stone and the charcoal of human campfires, mingled with the bones of fossil sloths that were evidently killed and eaten by the human hunters of more than twenty thousand years ago. Professor

Henry Fairfield Osborn, president of the American Museum of Natural History and one of America's noted scientists, has placed on public record his belief that man as such has existed on this earth for more than five million years.

Bearing these facts in mind, it behooves us to be very open-minded in the matter of chronology and chronological estimates, and this may be taken here to apply especially to the strange happenings chronicled by the traditions of widely separate peoples concerning the mysterious appearance on the shores of the Gulf of Mexico of the *Chanes* — The People of the Serpent.

These traditions tell us, and carvings on ancient walls and stone columns sustain them, that unknown ages ago there appeared strange craft at the mouth of what is now known as the Panuco River in the State of Tamaulipas. The sides of these vessels shone like the scales of serpents' skins, and to the simple natives who saw them approaching they appeared to be great serpents coming swiftly toward them.

In these craft were light-skinned beings, and some of the traditions have it that they were tall of stature and blue-eyed. They were clad in strange garments and wore about their foreheads emblems like entwined serpents. The wondering natives who met them at the shore saw the manner of their coming with the symbol of the Sacred Serpent, which they worshipped, on their brows, and knew the strangers to be their gods come down from their home in the sun to teach and guide them.

Who were these fair-skinned people, tall of stature and strangely clad, sailing through unknown seas to an unknown land? The answer to this question has been lost in the passing of the ages and the destruction of the ancient records, and now we know only that they came and that until after the arrival of the Spaniards, the place where they landed was known as *Tamoanchan*, which means, in the native language, the place where the People of the Serpent landed. It is near Tuxpan in the Tampico district.

The dark-skinned race took the light-skinned people to be their guides and teachers and all went well with them. Under the sage counsels and wise teachings of the *Chanes*, the indigenous race was raised from an almost brutish, savage condition to the status of thinking, reasoning people.

In the passing of time — and much time must have passed to have brought all this about — these wise men, the People of the Serpent, separated, probably in the furtherance of a concerted plan. Some went north and some went south, each with a band of dark-skinned followers. Those who went north were known among the Chichimecas and even more northerly peoples, the savage tribes among whom they worked and taught and whom they left enlightened, as *Tultecas* — ‘teachers’ or ‘builders.’

Those who went south, the traditions tell, forded rivers, lived under the shadows of great forests, and in cave darkneses suffered all things that man may suffer and live. Ever they moved onward, teaching and uplifting into the light the savage peoples among whom they tarried when they met them. They conquered, not by force and strange weapons, but by

binding the primitive peoples to them by force of their power and wisdom. Among these races they were known as *Ulmecas* — the Rubber People. It is known that they used rubber extensively and this is probably the derivation of the name. The leaders of the *Ulmecas* were ever known as *Chanes*, or, among the Mayas, as *Canob* — Serpents' Wise Men — or *Ah Tzai* — People of the Rattlesnake.

It is impossible from any sources as yet available to reconstruct the details of that pilgrimage of the *Ulmecas*, drawn out over no man knows how long a span of time, but at last they came to a favored site by two great wells. There they rested finally and there they built Chichen Itzá — the City of the Sacred Well.

Meanwhile a roving branch of the *Tultecas*, lost brothers of the *Ulmecas*, had turned southward and gone first to the ancient parting-place of the two groups of the *Chanes*. Through the slow-growing centuries they had become near kin in manners, thoughts, and language to the peoples they had neighbored in the north. They drifted along the ancient trail of the *Ulmecas*, down to the capital of the *Ulmeca* Mayas, Chichen Itzá. This was the so-called Toltec invasion, which occurred but a few centuries before the coming of the Spaniards and when all the races of the region were merged into one people under the name of Maya.

Thus, in barest outline, with many breaks and dubious places, runs the history of this ancient race of *Chanes* — People of the Serpent — and the peoples they led from darkness into light, from the landing at *Tamoanchan* down to the Conquest.

CHAPTER X

THE MAYA ADAM AND EVE

FROM the rich folklore of the Mayas, as well as from their traditions and legends, much can be learned by the student of this early American civilization. Many of the tales told today among the Indians of Yucatan have been handed down by word of mouth for generations uncounted and bear within them clear evidence of their antiquity. They contain much that throws light on the customs of the ancients and their manner of thinking. This folklore merits more extended treatment than the limitations of the present volume permit, but I will present two selected stories which may be regarded as typical.

The legend of the Maya Adam and Eve is given here just as it was told to me by the old *H'Men*, who was my friend. It goes back to the days when the Mayas used implements of stone. In clearing his land, the planter did not fell the trees, but 'cut' or girdled them with his primitive tools, so that they died and could be burned. The bushes he beat with flails so that they, too, died and became dry for the burning.

Once upon a time there was a man and a woman, a planter of corn and his wife, who lived on the edge of the deep forest, and in that forest he made his cornfield. Each day he cut the trees and beat the bushes until they were dead and brown and ready for

the burning. Each day at the proper time he cleared the growing plants of weeds until the corn grew full and green and its leaves sang in the wind and the rain. Each day when the sun was high his wife came bringing his food and drink that he might be strong for his work.

One day as she came up to him he said to her: 'While I am eating and drinking, go to the farther end of the field and gather the peppers that are there ripening in the sun, gather and take them home with you, for the birds are eating them.' The wife did as she was told.

While she was picking the peppers in the field, a stranger came in the form of a serpent and stole her soul.

The planter of corn ate his bread and drank his salted *keyem* — corn gruel — and waited for his wife to come. At last he went to seek her beyond the high-grown cornstalks and found her lying on the ground beneath the bushes without sign of life. He worked long and hard to bring life back to her, but could not. Then, taking her in his arms, he ran, as the deer runs when the jaguar is after it, till he reached his home. Then he laid her down, went to where a *H'Men* lived still deeper in the forest. The wizard came and looked at the woman long and hard as he said his prayers and plied his rites. Then he said to the planter: 'We must go deep, deep into the forest to the mouth of a cave that I shall show you, and in that cave you must ask for the soul of your wife.'

They went deep into the forest until they came to

the mouth of a cave, grim and dark, and then the wizard hurried back to his rites and his prayers while the husband asked in the cave for the soul of his wife.

‘I have come for the soul of my wife.’

Nine times he cried that in the mouth of the cave, and then the grim and terrible *Kukil Can* — the King of the Serpents — loomed in the darkness and his voice rang through the cave depths, making the rock walls tremble.

‘Bring out all the people!’ he cried.

The rattlesnake sounded the call with his rattle and all the serpents, great and small, came into the light, all but the *Chail* snake, the boa with beautiful skin of green and brown.

‘Bring out the *Chail*!’ said the *Kukil Can*, with lightning in his eyes and thunder in his voice.

They found the *Chail* snake in the deepest chamber of the cave, and its beautiful coils enfolded the soul of the woman. The *Shto choil* — the Rope Snake — beat the *Chail* till it writhed in pain and loosed the soul of the woman. When the husband reached his home, the light once more shone in the eyes of his wife. As he entered the house, she looked up at him and groaned.

‘What happened to you?’ he asked.

Then she confessed all, and that finished the matter.

The motmot (*Momotus*), called by the Mayas *Toh*, is one of the queerest birds in all the Americas. Its usual position is stiffly perpendicular, with its big head curiously held at right angles to the body and

its seemingly moth-eaten tail carried as if bent by a blow. The general appearance of the *Toh* is that of a badly mounted or badly abused ornithological specimen. This is the story of how the tail of the *Toh* got to be like that.

Before the time of the giants, before the time of the *Aluxob* — the Little People — and long before the time of the Ancient Ones that builded the great stone walls, the land of Yucatan was peopled by the beasts and the birds. The beasts spoke a language they all understood and so did the birds. This was the Happy Time, when all ate of the grains and the fruit and none thought to prey upon the others. There came a drought so long and so strong that most of the fruits and grains were withered and turned to dust on the trees and on the stalks. Even the *cenotes* were low and most of the water-holes were but beds of mud. Something had to be done, and quickly, else all would perish for want of food and water. The birds have wings to fly and so could easily seek the distant lands where yet the rains were falling and the fruits and grains were growing, ripening in the sun.

And so the birds gathered together, each with its kind, and started. The *Kambul*, the crested pheasant, *Kutz*, the golden turkey, the *Bach* and *Bech*, the quail, went together in droves. They flew for a while with a booming and a whirring like a heavy norther blowing, then they settled to the earth and ran till the patter of their feet upon the forest leaves sounded like the falling hailstones from a midsummer squall. Then came the *Chom*, the buzzard, *Contok*, the hawk,

and *Chell*, the jay, led by *Chui-ha*, the great kingfisher. They sailed high up in the sky and their wings were dampened by the wetness of the clouds. *Xui*, the great parrot of the red-and-yellow crown, and the little ones of green with their constant friends, the great-billed toucans, flew along in close-packed numbers and filled the air with their screams and chatter. The Great Blue Pigeon, the Red-Eyed Wood Dove, and all their near relations went together in swift flight. The whistling of their wings was heard before they came to view and long after they had passed and were hidden in the distance.

After these, the larger ones, came the smaller people, the *Chic-bul* and *Piche*, the blackbirds, *Yuyia*, the golden robin, and the fiery-throated hummer. As night came on, they rested, some on the treetops, some on the branches, and some on the ground, according to the habits of their kind. Then they held counsel as to who should wake them early for the journey of the morrow before the hot sun's rays should heat the air and make the journey wearisome. All were tired and sleepy and none cared to become the watcher and await the dawning of the morrow.

At last the *Toh*, the green motmot, stood upright before them on a broken bough and said in his slow, deep voice and grave manner:

'I am Cave Born and, like all Cave Born ones, need but little slumber. I will wake you all. Sleep in peace and leave all care, for before the sign of earliest dawn I will rouse you from your sleep.'

Then said *Kutz*, the golden turkey, in tones of unbelief:

'How can this be? To all it is known that the Cave Born are never early risers. How, then, can you think to wake in time and let us make the early flight that must be if we reach the land of food and drink before the sun goes down again?'

The *Toh* answered back in tones of anger:

'It is not true that we of the caves are late risers. We rise so early that we complete our tasks, are weary once more and go to rest before you think of waking.'

All the birds made merry, each in its way, at the speech of the *Toh*, and then they sought to sleep, some on one leg, some with head buried under wing, and some on the ground, each after the custom of its kind.

The *Toh* made ready for his vigil, but as the night wore on, the desire for sleep came upon him. Then he said to himself:

'By this plan that I have in my head I can sleep the night through, wake up the people in time, and still be fresh for the flight. I will hide myself among the plants that grow by the side of the path that the Forest Born use when they go to drink by the edge of the water pool. They go at the break of the earliest dawn and I will place my long, green tail in their very path. Then the first one that drinks will move my tail feathers and so awake me in time for my duty. The haughty *Kutz* shall soon clearly see that the Cave Born ones are not to be lightly laughed at.'

The *Toh* hid himself in the weeds with his tail placed full in the path and then he slept as all the

Tohes sleep. Before the break of earliest dawn, the Forest Born began to come and take their bath and drink their fill at the brink of the water pool.

Cuc, the gray squirrel, ran quickly along the path, stepped on the long tail feathers and passed. The *Toh* slept on. *Chomax*, the gray fox, trotted along and stepped on the tail in the path. The *Toh* slept on. *Och*, the opossum, scudded along and stepped on the dust-covered tail, and still the *Toh* slept on. *Xuleb*, the great black ants, came on in swarms. They saw the tail half-buried in the dust, worn to the quill by much passing above it; each nibbled a bit to see what it was, then went on his way to the water. And still the *Toh* slept on.

The sun was high in the heavens when the *Toh* awoke and found himself alone, buried in the dust, but buried deeper in shame. The birds had gone long before and his beautiful tail of green and black was worn to a quill and tip,

PART II
YUCATAN DAYS AND NIGHTS

PART II

YUCATAN DAYS AND NIGHTS

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CHAPTER I

THE CAVE OF LOLTUN

I HAVE said that my first extra-consular activities in Yucatan consisted of visiting all the known ruins on the peninsula and familiarizing myself with the Maya language and psychology. Days, weeks, months passed in preparing for the actual duties of the life-work I had mapped out for myself, and during this period I gained much in knowledge of the Maya natives who lived in villages and settlements far from the large centres. I learned their local habits and customs, their folklore, and their methods of thought. It was then that I commenced to mark the men that would be useful to me in carrying out the work of exploration and the excavation of ruined cities. In this selection Pedro Chablé was of great help to me. He was a keen judge of those who would serve our purpose best and his judgment was rarely at fault.

Pedro was a pure-blooded Maya of Yucatan with a lineage many proud nobles of Europe might envy. Long before the Conquest by the Spaniards, the Chablés were heard with respect in the councils of the Maya people.

When in 1847 occurred the uprising among the Mayas which has been described in a previous chapter, several of the influential natives refused to break their oath of allegiance to the white authorities, although by so doing they exposed themselves and their families and followers to great personal danger. Among these loyal natives was a Chablé, the ancestor of Pedro. After the uprising was quelled, these loyal native leaders received signal honors and certain privileges from the Government that exist to this day.

Before leaving the United States, I had acquired a knowledge of medicine and surgery rather above that usually possessed by an explorer. To this general knowledge I was able to add, by the kindness and wisdom of a friend, Dr. Mortimer Tappan, a graduate of Harvard and a prominent American physician practicing in Merida, special data useful to one in this part of the tropics. I had, besides, a certain knowledge of psychology that was to be of great advantage to me in my intercourse with a more or less primitive people.

I had also become, by this time, a good practical photographer. In this part of the undertaking, my work as a student in the laboratories of the Worcester Institute of Technology was of decided advantage to me. From boyhood I had been familiar with gun and pistol; I was accurate in my aim and quick on the trigger, and I improved in both respects with constant practice.

My knowledge of both the Spanish and Maya languages, especially the Maya, was now such that

I needed no interpreter, and I could carry on a conversation in either tongue. So I felt that at last I was prepared to graduate into the vastly interesting work of exploration and research among the ruined cities of this last Maya civilization on the peninsula of Yucatan.

My first trip, I decided, should be to the great cave of Loltun, to sound its depths and to see the moss-covered chamber walls on which man, in times long past, had carved strange figures and mystic symbols.

Far to the south, beyond the blue haze of the distant horizon were the *Uitzes*, the forest-covered hill-ranges of Yucatan, and somewhere, buried amid these little-known hills, was the big cave of Loltun, the Cave of the Stone Flowers. In all lands the caves of the mountains and hills have been the refuge stations of primitive peoples, and it was my task to find out how much this cave could tell us about the ancient inhabitants of Yucatan. This expedition, which I conducted for the Peabody Museum of Harvard, started from Merida late in 1888.*

Loltun, though known to the modern Mayas of the region, is rarely visited by them and few white men have ever peered into the deeply shadowed mouth of the cavern. The entrance to the cave was a natural break in the roof of the place where the rock was thinnest. We entered by a ladder made of two tree-trunks felled and placed in position with rounds made from the limbs. These were placed in notches

* Edward H. Thompson. *Cave of Loltun, Yucatan*. Memoirs of the Peabody Museum, Harvard University, vol. 1, no. 2, 1897.

cut out in the trunks by the *mascabes* or machetes of the workmen and firmly bound with the rattan-like vines called *anikab* by the Mayas.

Once within, we stood knee-deep in the strange fern growth on the rocky floor of the chamber, gazing up through the dim interior to where the sunlight filtered through the foliage, but did not reach us. The gray stalagmite columns stood out in bold relief against the lighter limestone of the walls behind them.

'It is like a big stone tomb,' said Mat Evan, his thin form shaking nervously.

'Like a place of the dead,' added Pedro imperturbably lighting a *jolooch* — corn-husk cigarette — and watching the smoke float up into the still air. Here and there vaulted openings led into black spaces and, we were later to learn, into other chambers, some of them even larger and more awesome. Hardly had we begun to look about us when we saw traces of ancient man and his handiwork. Barri-cades of heavy stone were so placed that they defended the entrance to the cave. Although half-buried in *débris*, they were still clearly visible. Other signs of prehistoric occupation were the *haultunes* or water-troughs of various sizes, some holding several gallons, hollowed out of boulders and placed where they would catch the water that percolated through the roof.

For a time each day we came out of the cold dampness, sunned ourselves on the bald stone ledge close by the entrance, and then went back to our work again. One day, while we were on our way to

take our daily sun bath, a slanting ray of light fell on a deep shelf in the cliff-like wall close by us, and I thought I saw something artificial in the material that covered its surface.

After letting the sun's rays beat on our bodies awhile, we took our trowels and went to work, carefully and systematically examining the shelf and the deposit that covered it. The find proved to be a most interesting one, a typical rock shelter and a camping-place of long duration, for we found under a thick covering of humus, root-growth, insect-cast, snail-shells, and rotted material, several layers of fine white ashes. Between these layers of ashes there were strata of dark earth, mixed with pieces of terracotta, some of which still bore traces of bright colors on their surfaces. Among these we also found many chipped flints, some perfect, others half-finished, and points of calcite and quantities of chalcedony chips. There were awls and needles of polished bone, too, and ornaments carved out of pearl and conch-shell, some white, others red, rosettes, disks, and pendants.

Beneath this material, in the rock of the shelf, were two small cavities, both partly artificial, that had served as caches or safe deposits. One held unworked pieces of chalcedony evidently intended to be fashioned into arrow or dart points, possibly as votive offerings. The other held some of the finest obsidian knife-blades that I have ever seen, long, slender, keen as a razor, and perfectly formed. Obsidian is a kind of volcanic glass called *istile* by the Mayas. It has never been found placed by nature

in Yucatan and must have been obtained by the natives in barter from Guatemala and distant parts of Mexico.

The shape and position of this shelf, the character of the finds made upon it, principally weapons in the making, almost inevitably suggested its use and purpose as an outlook station, and we named it 'The Shelf of the Sentinels.'

Seated on this shelf, looking downward into the dim depths below, I seemed to see the whole scheme of the prehistoric cave life. On this shelf brown-skinned men were seated, some on the ground and others on *canchés*, rough-hewn blocks of the soft *chacah* wood. Some were chipping flints, shaping arrow-points and lance-blades, splitting knife-blades from obsidian nodules, or working pieces of bones into polished awls and needles. Others were carving ornaments from pearl, conch, and red seashell to give as presents or to exchange for objects they needed to eat or to wear. But ever their sharp eyes, as black as midnight, shining like stars, watched the outer regions for the stealthy enemies that might appear.

Below, on the dark earth floor, women clad in snow-white garments made from the silvery fibre of the tree cotton, their coal-black hair bound by fillets of soft tanned deerskin, were cooking, roasting rabbits, wild pig, and jungle fowl over the glowing embers; or boiling corn, black beans, or peppers with fragrant herbs in earthen vessels over the burning coals of the *koben*, the three-stoned fireplace of the Mayas.

Men of low stature but sturdy build were lounging

about, clad only in white loincloth, their limbs blending in color with the dark red earth of the region they lived in.

Warriors, hunters, and, above all, planters of *ixim* — corn — of *bul* — black beans — and of the *macal bosh* — great yam — they were fashioning their *hul ché* — dart-thrower, a weapon of the Americas even more primitive than the bow and arrow — making *shuoles* — pointed staffs which they used in planting their seeds, sharpening the points and hardening them by charring over the coals of a fire.

The shrill, high voices of the children at play in the clefts and crannies of the chamber, and the low, sweet voices of the mothers, soft as the sighing of the winds through the pines, talking, laughing, and calling to their children, came up to the lone watcher on the Shelf of the Sentinels. Then the vision ended, for Pedro called him to supper and he went.

We passed through two chambers, seeing much that was interesting, but nothing remarkable, and entered a long tunnel whose walls, the color of burnt umber, so ate up the light that the candles we carried seemed to burn holes in the darkness instead of illuminating it. The tunnel led finally into a third chamber, high-domed and hung with stalactites, some massive and dark-colored, others slender and snow-white, their tips sparkling like diamond points in the candlelight.

At a place in the roof of this chamber where it is the thinnest is a big opening nearly circular. Some hundreds of years ago, a bird dropped a fruit of the

osh tree through this opening and it fell on the earth floor of the cave chamber. It took root and grew, a long slender sapling, until it reached the sunlight of the world above; then it spread abroad a shining crown of dark green leaves. Strengthened by the rays of the sun above and nourished by the rich damp soil below, the slender sapling became the massive tree with the wonderful crown of foliage that we found when we came.

At the chamber entrance a smooth section of vertical wall surface was covered by a broad band of wall-carved hieroglyphs; ancient inscriptions, still visible under the dark green mold that had grown over them. Projecting above the uneven floor were several large limestone boulders, some of which bore symbols of unknown meanings and hieroglyphs deeply carved on their surfaces. At the base of one of the largest boulders, on which was carved a figure like that of a mummy, we made our first excavation, a vertical cutting carefully worked out and reaching down from the actual surface, through various layers of ashes, broken pottery, and refuse that showed long prehistoric occupation, to the original rock floor of the cave, a depth of ten feet or more.

In the passage that connects the third and fourth chambers of the cave is a beautiful work of Nature. A cylindrical pedestal of white stalagmite with fluted walls and base stands close by a wall of the passage. The rounded crown of this column resembles the tightly closed petals of a snow-white blossom. In its centre is a cavity like a chalice half-shielded by a transparent veil of crystalline lime

stone. Not a drop of water enters from the roof above, yet the chalice is always full of clear, cold water and the walls of the pedestal are never free from the overflowing moisture.

‘It is a baptismal font placed here by the act of our gracious God for the poor lost souls that may need it,’ said San Ek, and reverently made the sign of the cross as he touched it. San Ek, when at home in his native village, acts as sacristan for the old white-haired *cura*.

An interior reservoir and natural syphon somewhere within the walls keeps the chalice constantly filled with water of almost icy coldness. This naturally produced cold water in a region where even well water is tepid must seem marvellous to the occasional Maya who sees the beauty of the fountain and enjoys a draught of its refreshing contents.

In this same passage there is a second object of special interest, and to produce it early man and later Nature coöperated. A large *haltune* or stone water-holder had at some time in the unknown past been raised about four feet above the level of the floor upon a base of several heavy stones and so placed that it was directly under a spot where the water, percolating from above, fell drop by drop into it. As time passed, this constant dripping not only supplied the needs of the thirsty prehistoric workmen who placed the *haltune* there, but coated the whole structure, base stones and water-trough, inside and out, with a transparent envelope, thin at first, but constantly thickening, of crystal-like limestone. When we came upon it, the structure had become a

rounded monolithic mass, but through the several inches of transparent coating could still be seen, encased in crystal, the prehistoric water-vessel. Then modern man took his part in working the scheme of things. Carefully removing a section of the crystalline covering on one side of the *haltune*, we chiselled deeply upon the cleared surface the formula 'E 1888' and left it until, as the years pass, possibly centuries, renewed deposits shall make this prehistoric vessel once more serviceable to science by recording the rate of stalagmitic deposit.

For days at a time we groped and threaded our way like human moles deeper and deeper into the cave. Chamber succeeded chamber, some opening directly one into the other, while others were strung, as Pedro said, 'like beads on a rosary' along dun-colored tunnels. While walking Indian file through one of these tunnels, we saw what seemed to be a piece of black cloth on the floor close to the side of the wall and a few yards ahead of us. Like a school-boy I inquired what it was by heaving a stone at it. The stone disappeared with a sound like breaking through the brown paper sides of a wasp's nest, leaving the 'black piece of cloth' still larger. Listening, we heard the stone at last strike bottom. After that we felt our way gingerly when we tried untrodden paths.

I referred above to certain rock carvings in the cave which suggest the conventional design for mummies. Considerable interest attaches to this fact, especially as in Loltun and other caves are found traces of the earliest habitation on the peninsula.

We have not as yet, however, found actual proof that the early Mayas, like the Incas of Peru and other ancient races, used this form of interment of their dead.

CHAPTER II

IN A WELL WITH A RATTLESNAKE

IT HAD been understood when I accepted my appointment to Yucatan that I would, after looking over the field, select what I considered the best group for the purpose and make a study of it for the Peabody Museum and Harvard University. My choice fell upon Labna — Old Houses — far within the forest-covered interior of northern Yucatan, and so it came about that this was the first ruined city on the peninsula to be scientifically explored. It is fascinating work, this digging up the evidences of a past civilization. Each leaf found tells a fact or portion of a fact that the next may add to or even complete.

I was guided in my choice by the consideration that Labna was not only an important group of ruins, but a virgin field. Uxmal is larger than 'Old Houses' and Chichen Itzá is larger than Uxmal, but the latter had been worked over for a century, and Chichen Itzá since the arrival of the Spaniards. Le Plongeon had made explorations at the ancient capital of the Mayas, and so had Désiré Charnay and various others, and at Uxmal also much had been done. Labna had escaped the attention, not only of the archæologist, but of the modern vandal as well. It was too near the haunts of the dreaded *Sublevados* to suit the taste of the curiosity-seekers and no *hacienda* exists in its neighborhood to covet the worked stones that it contains. This group is not-

able for its cisterns and also for a small but beautiful edifice, the so-called 'Portal,' the form and carvings of which earn it a place among the best examples of the ancient architecture of Yucatan.

I believe that every important edifice built by the Mayas or their interallied peoples was constructed upon terraced platforms raised at varying heights above the surrounding level. Some of these terraces are of great extent and upon their graded surfaces rest the temples, public buildings, and palaces. Chichen Itzá, Uxmal, Labna, Sayi, and Kabah are notable examples.

Each of the ruined cities that I have explored or discovered has its special point of interest and this fact adds greatly to the fascination of the work. All, however, have one problem in common, and that is, 'What was the source of its water supply?'

The ancient centre of Chichen Itzá, T'Ho — now Merida — Sacci — now Valladolid — and others had underground streams or sink-holes called *dzonot* — *cenote* — by the natives, which furnished inexhaustible supplies of water.

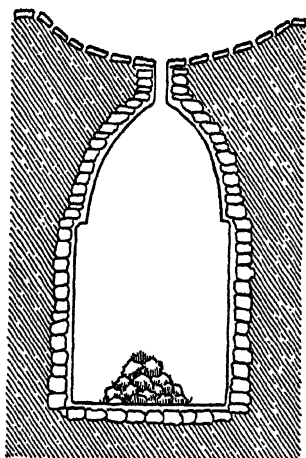
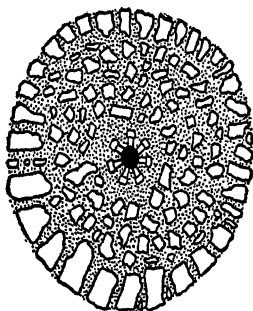
Other centres of population, not furnished with large natural sources of water, had to depend more or less upon ingenious methods of collecting and storing the precious fluid. In some of these places Nature had been kind enough to form pot-holes in the impervious limestone strata, natural reservoirs — called *haltunes* by the Mayas — which, during the rainy seasons, became filled with water. The pot-holes are often numerous and of large size. I found one near Chuntichmool that, when filled, held several

thousand gallons of water. The prehistoric water-carriers had cut steps in the solid rock down to and even into the water, and, as the contents of the *haltun* diminished, by means of these steps they could utilize it to the last drop.

Sometimes these pot-holes were enlarged beyond their natural outlines to increase the supply. The ancient Maya also improved the natural drainage by excavating certain depressions of the earth to a very large size. The swamps that make Uxmal today a hotbed of malaria and deadly fevers were in ancient times supply basins, true reservoirs, largely artificial. Their once clear, well-paved bottoms are now buried deep in swamp muck, the washing from the surrounding forest, and in the decaying vegetation that marks their outline, wild ducks breed, frogs croak dismally, and snakes entwine. Only such creatures can live and thrive beneath the great white sheet of miasma that nightly shrouds the deserted but still magnificent temples near by.

One of the singular facts about Labna was that it seemed to have depended entirely upon the rainfall for its water supply. Every large edifice within this ancient city had at least one reservoir or cistern called by the Mayas *chultunes*, built into the structure of the terrace on which the edifice rested. They were, therefore, really subterranean chambers.

In the scientific investigation of Labna, one of my interesting duties was to descend into these *chultunes*, take their measurements, calculate their capacity, and investigate the materials that had accumulated on their bottom. Often I found things there of real



THE RATTLESNAKE'S WELL AT LABNA

The upper figure shows the pavement on top as viewed from above, with the man-hole in the center

archæological value, jade beads, pendants of polished stone, and shell objects, either thrown in as votive offerings in some forgotten ritual act, or else, like the terra-cotta water-vessels, dropped in by accident while the water was being drawn. On the smoothly finished stucco walls of the *chultunes* I sometimes found, moulded in relief, figures representing water-fowl, turtles, frogs, and snakes, all very naturally done.

In the material of the terrace that supported the Palace, was an unusually large and well-made *chultun*,^{*} in shape and structure like the smaller chambers of the Palace. A large circular pavement raised above the terrace served as a watershed that conducted the rainfall on the surface through a man-hole about three feet in diameter, down into the cistern.

In preparing to enter subterranean places of this character, I wore a high-crowned hat with a narrow brim, the crown of which was filled with rags or leaves, and I held between my teeth a heavy and very sharp hunting-knife. Then with one foot in the noose of a stout rope and one hand free, my men let me over the edge and down into space. The rag-packed crown served to receive and to ward off harmlessly what might otherwise be a knockout blow if a falling rock should hit me, while the sharp and heavy hunting-knife came in very handy at times when I had to snip off the heads of a small but very poisonous species of rattlesnake that lived in the rock crevices,

^{*} Edward H. Thompson. *The Chultunes of Labna*. Bulletin of the Peabody Museum, vol. 1, no. 3, 1897.

before the reptile could fasten its fangs in my face. I carried the knife between my teeth while on my way up and down for the reason that my right hand was thus left free and ready for quick action when needed.

Thus equipped, I was let down one day through the man-hole and into the water chamber. It had been, when in use, a very fine *chultun*. Of course the settling of the soil and the wrenching of the tree-roots during centuries of neglect had cracked its walls and opened seams in the well-made floor. But it still kept its pristine shape as a water chamber, although it no longer held water.

As I went down, I noticed, in the dim sepulchral light that entered through the opening at the top, the loosened stones in the roofing, the cracks in the walls caused by the settling, and the large mound of débris that had fallen through the man-hole. I landed lightly on the mound and, stepping to one side, began to take the measurements. As I scraped the dust away from a corner, I heard a sound that I well knew, the rattle of a rattlesnake, and it came from the stone mound on which I had just stepped. I looked at the spot intently and saw a big triangular head come from the mound, raise itself a foot or so, and then the wavering head with its lidless eyes gazed at me fixedly. I looked at the snake while the snake looked at me; meanwhile his body was gliding smoothly out from that pile of débris, until I began to believe that what I thought to be a mound of rock and dirt was mostly rattlesnake.

It was a very large rattlesnake. He had probably fallen through the man-hole when young and in-

experienced in the handling of his body, and perforce stayed there. The rain and dew that from time to time entered was sufficient for his needs, while the incautious and inquisitive rats, moles, lizards, and toads that fell in were sufficient to keep him alive and thrifty. So he waxed big and strong and very venomous. Everything considered, he must have had rather an easy, uneventful life until I came and made him a very mad rattler by squeezing his body as I stepped on the rock pile.

The situation grew rapidly acute, for his eyes were turning bottle green, his jaws dripped saliva, and a strong odor like musk filled the unventilated space of his chamber, and gave me a feeling of nausea. It was clearly time for me to make a move.

At first thought it would seem that at least I could pick up a rock and smash the snake's head. But all the rocks were close to where the snake lay coiled. Where I had been stooping to take the measurements by the wall, there were only tiny twigs and the dust of ages. There was nothing in that idea. I might have shouted and so brought help from my men, but I had proved long before that, unless I could take my stand directly under the opening above, no matter how loudly I called or how distinctly I spoke, my voice would reach the surface only as an inarticulate howl. The men might have detected an urgent note in the howl, it is true, and sent one of their number down to investigate. The nearly naked native would have come swarming down the rope onto the rattlesnake and straightway I should have had a dying Indian on my hands.

I might have shot his head off with a bullet from my heavy revolver, but the heavy discharge in the confined space might have brought the roof stones in a pile on me. A still better reason for not using my revolver was that I did not have it with me. I am very rarely parted from my revolver while marching through the jungle or making excursions of this nature, but with the cartridge-filled belt and holster it was heavy around my waist, and so I had just hung the belt and revolver on the limb of a near-by tree, where it could now do me no good.

The rattlesnake was working himself into a cold-blooded rage while I leaned against the wall of the chamber and watched him tightening his coils and changing the upper one into the striking S. If anyone says that a rattlesnake strikes directly from a coil, you may tell him from me that, in the jungles of Yucatan at least, he does not. He throws the last coil back into a kind of a double curve and then launches his attack the length of that double curve; no farther and often much less. But, even so, that would be far enough for him to reach his mark. I had raised my booted leg, hoping to receive the threatened stroke on its leather surface, when the miracle happened.

The walls of the *chultun* were made, like those of the Palace itself, of stone and mortar rubble, faced with cut stone and surfaced with a hard finish of mortar. That last surface of mortar was much thicker in the *chultun* than in the Palace chambers above, that the stored water might not seep through it.



THE SNAKE OF THE WELL

During the centuries that had passed since the structure was deserted, the terrace had settled and with it the *chultun*. This settling had caused the thick mortar surface of the *chultun* to buckle in places from the faces of the wall stones, and it was my good fortune to lean directly against one of these buckled places. I felt the surface give and at once understood what it meant. Pushing back with all my strength, I felt the mortar crack. To reach behind me, grab a thick fragment, and throw it at the rattler was the work of a moment. I missed the head and neck, already tense for the spring, but struck the coiled mass of the body. I must have hit it hard, and fractured a vertebra, perhaps, for the head and neck fell to the floor of the chamber and writhed there uncertainly for a few seconds. Then this creature seemed to recover, for he once more raised his head, but too late.

Those precious seconds that he lay prone were sufficient for my purpose. They gave me time to seize and throw two other fragments of mortar that stunned the reptile. Placing the limp head through the dangling noose, I held it there by putting one foot on the neck in the noose and shouted to be drawn up. The men must have understood the urgency of my call, for they hauled me up so quickly that both skin and flesh was torn from the knuckles of my left hand by the rim of the man-hole. Even to this day there are times when I cannot move my fingers freely.

There was a curious aftermath to this adventure. I took two or three baths a day with fragrant herbs

and aromatic buds added to the hot water to get rid of the smell of the snake, and yet, for days after, every time that I perspired freely, I could smell that musky odor of that rattlesnake.

My favorite riding-horse was an animal so attached to me that he would follow me around like a dog if I let him. When I wished to use him, I would only have to give the low and soft but penetrating whistle of the quail, and he would come up with a whinny and nuzzle me for a piece of cane sugar. After this affair with the rattler, he would come readily at the call until he caught the snake odor. Then he would stop abruptly, his nostrils would widen until I could see the red, and he would snort and rear until it took two men to hold him while I mounted into the saddle.

CHAPTER III

A WILD RIDE IN A VOLAN

THE Labna Expedition was well under way and working smoothly. My wife and baby had come up from Merida to visit for the first time an ancient city of the Mayas. They had slept in one of the buried chambers of the buried palace and had been shown the resplendent plumage of a golden turkey that we had shot the night before in the forest growth directly over their chamber. They had seen the work as it went on, admired the results, and were now quite willing to enter the *volan* once more and return to the comforts of civilization.

A photograph can show what a *volan* looks like and words can in part describe it, but only the person who has voyaged in one can really understand what a *volan* is. In outward appearance it resembles the old fashioned canvas-covered butcher's cart hung on two heavy leather springs, and it swings between a pair of big high wheels. The wooden bed of the butcher's cart is replaced in the *volan* by a network of cords on which is placed a thick mattress filled with tree cotton. On this mattress the passengers are supposed to rest. Two persons, or even three, when closely related, can ride in fair comfort, seated crosswise. When natives to the land are passengers, I dare not attempt to limit their number.

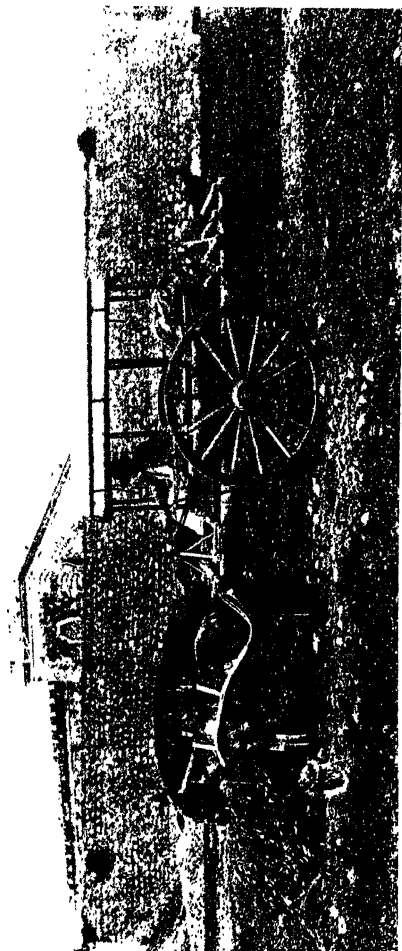
The *volan* is drawn by either three or five mules, one between the short twin bars and the rest at

either side or in front of him. The mules are attached to the *volan* by a harness made of rope and without hold-backs. Once started downhill the mules simply have to keep ahead of the *volan* or else fall under the wheels. The driver sits on the edge of the mattress at the front of the *volan*, swings the long lash of his whip, half-rises from his seat, shakes his rope reins and shouts *Hoola!* The mules start off at a gallop. When I have voyaged in a *volan* I have on various occasions called it the 'air line,' for I seem to spend most of my time in the air between the mattress and the roof.

When we started, my wife, baby, and myself, on the journey homeward, everything seemed to point to a calm, uneventful trip. We knew that the road was rough, but not too bad, the air would be warm, doubtless, but not too hot, and we were all three inclined to accept little inconveniences as a part of the day's work.

A flock of *chachalacas* — jungle hens — high in the treetops discussing current events, scolded us noisily for disturbing their session; but the cheerful gray squirrels scampering among the limbs just above us and the pungent forest odors wafted into the *volan* as we passed on made us forget all else until we reached the cornfields of Tabi, a large sugar plantation on the frontier, halfway between Labna and the town of Ticul.

The administrator of the plantation met us with open arms at the great gate, with an urgent invitation to spend 'one day, two days, three days if you can,' as his guests; and I had to plead the great



A VOLAN

need of my presence at the Consulate before he would allow us to depart. Before we could get away, he had caused two big bunches of delicious green coconuts to be tied onto the *volan*, one in front just under the seat of the driver and the other lashed on behind.

'I have not forgotten that ice-cream soda that you gave me in Boston,' he said; and he was, I think, planning to have a third bunch lashed on somewhere under the bed of the *volan*, when I nodded to the driver and we waved good-bye to Don Antonio as the mules started off at a gallop.

A few miles from Tabi the long and gentle rise in the road changed to a long and rough descent. It would have been a perilous descent for any vehicle but for the fact that the owners of Tabi had spent much labor and money in the building of a fairly good highway from the plantation to the distant railroad station of Ticul. Even so, the hill was still so steep that, standing on the summit, one could see the sheen on the back of the buzzards' wings as they wheeled high above the treetops of the forest below us.

When a *volan* or a cart reaches the summit of this great hill and seeks to descend, the only prudent thing for the driver to do is to stop the mules at a safe distance from the brink, and cramp the wheels by tying one or both of them to the cross-bar with a stout rope or fetter chain. In this way the vehicle, half-drawn by the mules, half-sliding by its own weight, reaches the bottom safely. That is what I expected our driver to do. Instead, what did the reckless fellow do but drive full gallop up to the

very edge of the descent and then, whistling a merry tune, jump from his seat to fasten the wheel.

As he began to do this, he saw that a trace was loose and dragging on the ground under the heels of a mule. Grasping the cross-bar with one hand, he leaned far forward to clutch the rope and tie it into place. So doing, he started the *volan* which was balanced on the very edge of the hill. The mules, nearing home and impatient, took the push of the *volan* as a signal, and began to move. Seeing what was happening, I jumped from my place by the side of my wife, seized the dangling reins, and tried to stop the downward movement — but in vain. The driver held on to the cross-bar as it passed above him, and gradually drew himself up to his seat.

Nothing now could stop the *volan*. The mules with the loose rope end slapping their flanks must keep ahead of it and on their feet. A glance at the driver as, with narrow-slitted eyes and mottled yellow cheeks, he pulled upon the reins, told me what to do. I placed my wife and child as far back in the *volan* as they could safely go, in order to take all the weight that I could off the bar mule, and then, crouched beside them, waited for what might happen.

The driver, although a badly scared native, managed his team extremely well. With voice, whip, and rein he encouraged and guided them. At just the right time and proper angle he veered the *volan*, often on one fire-spitting wheel, from side to side, to check as far as possible the constantly increasing momentum. The swaying of the *volan* and the

shrieking of the wheels against the stony road became so violent that the voice of my wife came to me faintly from the canvas-covered depths with the question, 'Is it necessary to go quite so fast?'

I had to tell her that it was; but to soften the curtness of this answer I added, 'You know that the faster we go, the sooner we shall reach our journey's end.' If she had not been so occupied holding herself and the baby together and both on the mattress, she must have noticed the inane of my reply. Even as I made it, there came to me the sober thought, 'What will be our journey's end?'

The sight and thought of that wide, well-made roadway became very comforting to me. Had there been a single projecting rock or amputated tree-trunk for us to run against, our chance of escaping sudden death would have been small. As it was, I began to have a faint hope that possibly we might, after all, escape without loss of life and perhaps even without serious injury. Hardly had this hope formed in my mind, when from the tall growth by the side of the road lunged a sturdy young bull. With wildly flinging head and tail held stiffly, he recklessly crossed the path of the mules and plunged into the growth on the opposite side.

'Thank Heaven, we escaped that collision,' I breathed, and wet my dry lips with my tongue. The bushes parted again and the yellow bulk of a jaguar hurled itself in two great bounds right into the path of the foaming mules. So intent was he on his escaping prey, the bull, that he did not observe us until he was on his second bound.

From my seat near the driver, the whole thing passed before me as in a panorama. We were so close to the animal that I could see the wrinkled lip, the thick bristles above the mouth, and the shining teeth, and I could even tell, by the widening glare of the yellow eyes, the exact second when he first saw the oncoming mules and the *volan*. I was then given the opportunity to observe the wonderful coördination of faculties in a wild beast of the forest.

While yet in mid-air the creature saw that the leap, if completed, would carry him directly under the galloping mules and the crashing *volan*. At once the body began to turn, in the effort to strike the ground in the right position for a quick return leap that would carry him safely out of danger. And he almost made it. Almost, but not quite. I shall always believe that the coconuts, now shaken loose from their fastenings and bombarding the atmosphere in all directions, caused the jaguar to lose the fatal second of time. He escaped the plunging mules, but before he could grip the ground with his powerful hind feet, and make the necessary spring, the *volan* was upon him.

The driver, from his seat in front, saw the jaguar land, saw the sharp iron rim of the wheel shear the black pad from white tendon and bone of one hind leg. I felt the sharp jolt and the lunge of the *volan*. I saw the lithe body half-raised in the air, claws retracted, head thrown back sharply, eyes rolling and lips drawn back in a savage grin. I heard a terrible scream of agony, and then the *volan* crashed on into the forest silence again.

My wife looked at me wide-eyed.

'What a big jaguar that was and what a terrible scream!' she said.

'It certainly was,' I answered. 'There seemed nothing else to say at the moment.'

With heaving flanks and ears laid back, the trembling mules and the drunkenly swaying *volan* stopped at last in front of the railroad station.

'Won't it seem good to be home again!' said my wife, as she picked a big green forest bug off the dress of the baby. Then we took the rickety little train for Merida, where jaguars are not.

CHAPTER IV

XXICHMOOK, THE HIDDEN CITY

WHILE I was working on the Labna group, I was told by visiting native hunters of great structures of stone deep in the forest jungles to the eastward. From time to time, as these hunters and corn-planters increased their visits to sell us game, and to view with childlike curiosity our strange shining instruments, and our stranger actions in using them, the information they gave me gradually took definite form and convinced me that, somewhere in the great forest to the east, there was buried an unknown but important group of ruined structures, known to some of the native hunters and *milperos*, as *Xkichmook* — The Buried Beauty — and to others as *Xkichmul* — Between the Hills, The Hidden City.

After the Labna Expedition was finished, I tried to locate this buried group of Xkichmook and nearly succeeded; but not being suitably prepared for the task, my supplies gave out before I could complete the undertaking. Marking the boundaries of the season's work to serve as a starting-point for the next attempt, we set out on our homeward journey over a wild new country.

The sun was getting low when we came upon a small clearing. It had evidently once been the corn-field of some solitary native, who had planted and partly cared for it, but never gathered the crop. The ripened corn was yet in the husk. It had never been

doubled, as the natives always do when they leave the corn to ripen in the sun and harden. The stalks were rounded masses of climbing vines. Yellow *calabasas* were everywhere rotting, while yams and yucca roots lay half-revealed in the ground beneath the drying stalks and vines. The owner had probably been killed by a jaguar, a poisonous snake, or perhaps by one of his fierce brethren, the *Sublevados*, and the fruits of his labor were destined to furnish food for the wild denizens of the region.

These things looked good to us, for we had long traveled in light running order that did not admit of much change in the matter of food; and with right good will some of my natives went into the deserted cornfield to forage. They returned laden with the fruits of the field, and reported indications that large numbers of *kutz* — golden turkey — made the cornfield their favorite feeding-ground. This rare bird is one of the handsomest game birds that the New World has produced; and were it possible for the gastronomic world to know it, epicures would hail it as one of their choicest dishes. It seems a pity that these beautiful creatures, with their graceful movements and iridescent plumage, should be cut up, cooked, and served as food for hungry men. But such things have to happen sometimes, and we were hungry.

By the time the natives had gathered the best of what the wild foragers had left for them to take, the swift tropic twilight was upon us. We moved on to a point where there was a large pot-hole in the limestone ledge almost full of clear rainwater, and then

we camped for the night. While the rest of the natives attended to the camp duties, Pedro and I retraced our steps to the old cornfield to select suitable positions for the coming hunt before the darkness closed over us completely. This was a task quickly accomplished, and, making our way back to camp, we ate a good meal of roasted yams, wild pig, and *tortillas*; then, after the usual period of desultory conversation, we took to our blankets to snatch a little sleep before the time came to set forth after the turkeys.

The dewdrops on the slender, tremulous leaves of the *tzubin* tree were glistening like diamonds in the clear moonlight, as at the light touch of Pedro's hand I got out of my blanket, swallowing a gourdful of the ever-ready hot corn gruel *atole*, and was ready to start for our places. As we quietly settled ourselves in covert for comfortable waiting, the heavy night odors bathed us with their perfumes, while in the distance the soft hooting of the giant owl and the tremulous cry of the cave-raccoon came to us distinctly, borne on the still air of the early morning. The moonlight gradually changed into soft darkness, and then into the deep grayness that tells of coming dawn. It was still too dark to see forms, but the rustle of great wings and the tread of heavy birds as they pressed the dry stubble underfoot could be distinctly heard. Gradually the increasing light brought out the forms of things, and revealed a sight sufficient to drive a naturalist, an artist, or a gourmand into his own kind of ecstasy.

We had placed ourselves close to a narrow path

made by the wild creatures in their journeyings to and from the cornfield; and in this path, crossing it in all directions, entering and reëntering the cornfield on all sides were the great, splendid birds, seemingly hundreds of them. In all my years of exploration in the deeper forests and jungles of Yucatan, I have never seen such numbers in one flock. I looked at Pedro, and saw in his eyes — for one never speaks when on a hunt like this — that this same thought had come to him. Great strutting males, their plumage, even in the feeble half-light, resplendent and gleaming; sober-colored but graceful females, were all wandering about unconcerned and carefree. Pedro fixed a calculating glance on a big, lordly, strutting fellow, and looked at me inquiringly, but I said 'not yet' with my eyes. Pot-hunters we were by force of circumstances, but — not yet, not yet. Once in a while several young males would apparently have a good-natured tiff with head and wings, while the rest looked on with interest. At times half a dozen or more would play something that marvellously resembled a game of tag, one running about with outstretched neck and wings and chasing its fellows.

Suddenly, almost, it seemed, at a preconcerted signal, I saw for the first time the dance of the wild turkeys that the natives had so often described to me; a dance so well characterized that the natives have taken it as one of their own. Several turkeys, each facing another, stamped rhythmically, moving in apparent unison, retreating, advancing, side-stepping, and turning in perfect silence and with the greatest gravity. An interested audience of their fellows was

grouped near them, and when one bird was tired, he dropped out and another bird at once took his place.

We spent almost an hour watching the movements of these beautiful creatures, and I do not know how much longer I should have continued to do so had not a warning glance from Pedro told me that the fast-rising sun would soon lose us our chance for the needed food supply. With a sigh I reached for my gun. Pedro shot, as all natives do, at standing game; I let him pick his bird, and waited till they rose from his shot. The soft roar of his gas-pipe gun boomed on the still air, and then at the quick double report of my gun two big birds fell heavily to earth, while the whole field seemed to echo to the whirl of mighty wings. Two large cocks and one poor half-grown hen lay dead before us.

I looked reproachfully at Pedro whom I had taught better game ideas than the natives usually have, and was surprised to find that his eyes were fixed on me with a meaning much the same. With my penknife I dug from the head of the hen two native-made shot, and held them out to him without a word. He looked crestfallen, but still unconvinced; and then I, with the greatest dignity and still without speaking, dug out of my two victims several chilled No. 6 shot. In silence I awaited what he had to offer. He, poor fellow, was bewildered; he stoutly maintained that he had aimed at and shot the pick of the whole flock; and I really think that he almost believed that one of my birds was his bird also, despite the evidence of the shot.

Suddenly a heavy, convulsive flutter among the

corn-stalks brought quick enlightenment to his mind and a look of relief to his features. He rushed into the tangle, and soon came out, sneezing violently from the tickling hairs of the cowage pods that his movements had dislodged, but holding up triumphantly the largest, fattest bird of the whole lot, badly wounded in the head. Some of his shot had evidently been intercepted by an unseen bird, which had become an undesired victim. Thus bountifully provisioned, we wasted no more time in hunting, but took up our direct line of march for the frontier town of Xul.

The next season I renewed the attempt which this time was successful. Tabi, the last plantation between the wild lands, the home of the dreaded *Sublevado* Mayas, and civilization, was my starting-point. Besides myself and Pedro, four sturdy native Mayas, perfect woodsmen and known to me by months of service, made up the party. We had with us two mules to carry provisions, instruments, and tools.

Early one morning, while belated owls, hooting shamelessly, were returning to their homes, we passed from the region of beaten roadways into the narrow, red trails beneath the forest trees. These were dripping with a dew so charged with a pungent root odor that it was almost a perfume. As we passed on into the forest, the approaching grayness of the dawn seemed to recede once more into the gloom of night.

Countless bats fluttered noisily among the leaves and dropped the seeds of half-eaten forest fruits upon us. The hours passed and daylight came, the forest

daylight, in which one moves through mazes of broken light shafts, dark shadows, and green masses of vines and foliage. We stopped beneath a gnarled and thorny *pochote* tree, whose oval balls of white cotton were almost ripe and ready to burst. In less than a week, the silky filaments would whiten the ground beneath, to be used only by the birds in their nest-building and the rodents in their burrows.

As we sat eating our *tortillas* and dried meat roasted in the fire, we saw at a little distance off, a large *chechem* — rosewood — tree, in luxuriant foliage. The Yucatan rosewood tree is, according to the natives, a kind of *upas* tree; birds that light in its branches, animals that climb its limbs to rest in its shade, are found dead in the morning. That is probably untrue, for I have found many rosewood trees, but have never yet seen a dead creature amid its branches nor on the ground beneath. But I can vouch for the fact that its sap is a violent poison, and a person who sleeps beneath its shade, with the dew from the tree dripping upon him, will be seriously poisoned and may put his life in actual danger. The sap from a bruised twig sears the skin and produces swelling, itching, and often a discharge like pus. It is said, however, that there are persons who can handle it without being poisoned.

The trails had long since turned into wild animal paths. Sometimes we passed over the ridges of the Sierras, and again we wound our way down into the grassy valleys, by the paths made by the wild boar and the deer. We went under groves of wild plum trees, where the aromatic fruit lay thick on the ground

or crushed into pulp by the jaguars that like to roll in it as cats do in catnip. So we journeyed on, seeking and finding the various signs by which we knew that we were nearing the buried city.

One afternoon, we found ourselves by the edge of a small lake, called by the natives Akal. Yucatan has almost no brooks or running water, and for four long years my ears had not heard the sound of singing brook, nor had my eyes been gladdened by the sight of rivers flowing on the surface. So this little bright lake in the midst of the dark forest was to us like an oasis in the midst of a desert to the sight of the thirsty traveller. We encamped then and there and bathed long and luxuriously. One of the men, a famous cook among his people, took advantage of the stop to cook in the earth, with all the requirements of the occasion, forest herbs, little wild peppers, and all, a large wild fat turkey that we had killed. That meal was a banquet that anyone would have enjoyed, although the menu might perhaps have puzzled him.

The meal over, we lay back comfortably, looking up into the dense foliage far above us, where a family of *tigrillos* — little tiger cats — were frolicking. Either they thought themselves too far above us to be in danger; or, more probably, had never before seen man and so had not learned to fear him. My men were about to teach them something, but I forbade them to fire. The *tigrillos*, about double the size of a common house cat, although much more slender, are harmless to all except the smaller game and the hen-roost.

Before we slept, we told the nightly stories around

the campfire. On this occasion most of them were about the bloody doings of the *Sublevados*, and, as we rolled ourselves in our blankets and gave ourselves up to slumber, all save one silent watcher crouching by the fire, doubtless our last waking thoughts were of them, for we were well within their country.

We slept soundly and well, as tired men, well fed, should; I in my hammock, swung between two trees, and the natives on the ground around the fire. How long we slept thus I never knew, but I was suddenly awakened by a series of hideous yells, and my surprised eyes dimly saw, half-naked, brown-skinned bodies dancing wildly around the fire. My fingers gripped my ever-ready pistol. As my naked feet touched the ground, a thousand red-hot needles pricked me, and then another figure, a white-skinned one, joined the dancing group. The explanation was simple enough. An army of black foraging ants having designs on something more distant, found the half-clad bodies of the slumbering men intercepting their path, and after the manner of their kind, proceeded to sample them. A thousand keen little forceps simultaneously set to work on each of the four brown bodies. The frenzied yells and the agitated dancing followed as sunrise follows the dawn. For over an hour we were forced to keep at a distance from the fire, and let the ants go about their business without interference. By and by, the solid black mass grew thinner, and finally faded away entirely; then we went back to our belongings and took account of stock.

Everything had been sampled, even to the leather



XXICHMOOK, THE HIDDEN CITY

binding of my boots, but nothing was seriously damaged. A little black line showed where too inquisitive ants had tried to reach the lard, in its tin pail, and had tumbled in. They had even investigated the campfire, and a ring of half-burned bodies, shrivelling up in the heat, lay entirely surrounding the coals. For a while we sat nursing our bites, and then, 'turned in again,' to sleep soundly until the scolding of the great blue birds, the *cheles*, woke us up once more.

Early the next day, just after the broad disk of the sun, the great golden disk that the primitive people delighted to worship, swung up above the forest ridge on which we stood, we saw in the distance the massive walls and majestic form of an imposing stone structure, 'the walls of which shone like silver,' in the sunlight. 'Xkichmook,' I said softly, more to myself than otherwise. 'Xkichmook, *no hoch hach tzutz*' — 'how big and beautiful' — echoed my Indians in tones as soft and as awed as my own.

We approached the ancient group through the remains of an artificial watershed; then we had to climb the walls of a stone terrace and cross the level platform, up to the towering base of a massive stone building, blank and severe as a fortress wall. Skirting this with difficulty, because of the fallen masses of stone, we passed through a narrow archway into a hollow square. On the south rose the high temple, on the east and on the west were one-story structures, wings of the temple, while that on the north was ruined and shapeless.

We climbed slowly upward, over the fallen blocks

and columns that covered the broad stairway leading to the altar platform, on the top of the temple.

From time to time we stopped to let the breeze refresh, and to admire the landscape as it unfolded itself before us. Just before we reached the top, a stone rolling down made us look in the direction from which it came. A handsome female jaguar had just glided out from beneath the altar structure and was gazing at us with unblinking yellow eyes, uncertain whether to fight or run. A heavy American ball and a large native-made lead slug reached her vitals at almost the same instant. Her blood sprinkled the altar base as she gave her last convulsive spring. She was offered up as a blood sacrifice for our discovery of Xkichmook.

Later, I made a survey of this ruined group under the auspices of the Field Columbian Museum of Chicago. The details of that study of this ancient city are set forth in a scientific report ¹ published by that foundation.

¹ Edward H. Thompson. *Ruins of Xkichmook, Yucatan*. Field Columbian Museum, Anthropological Series, vol. 2, no. 3, 1898.

CHAPTER V

THE LAKE OF BITTER WATERS

WHILE most of my explorations in Yucatan were conducted under the ægis of one or another museum or university, there were others which were sponsored by myself alone. I have always had at hand a sufficient number of ideas which I wished to try out on my own account and as opportunity offered I have tested these with varying success. One of my 'side expeditions' was to the Lake of Bitter Waters. This experiment may be said to have turned out well, for I and the members of my party escaped with our lives after a band of *Sublevados* had pursued us with sharp and eager knives up to the outskirts of a frontier city.

One night, while I was still making moulds of the Portal in Labna, we were encamped in front of the Palace. Sprawling on blankets, crouching on their haunches, or sitting on logs before the campfire, my followers were talking, joking, recounting the happenings of the day. Behind us on the massive wall of the old Palace front loomed the grim masked face of the Serpent God, broken but still majestic.

Said Bit Ek musingly, as he carefully bisected with his sharp machete a big black scorpion that, dazed by the firelight, had ventured too near him: 'Away to the south of us is the big lake Chichan Kanab, called by the white men the Little Sea. Few white men have looked on its waters, which are salt, but not with the

salt of the sea. I say it and it is true, for I have seen it and tasted of its waters.'

As I listened to the words of this taciturn man of the jungles, I knew that it was written on my forehead that I should know more of this lake with its bitter waters. And as I raised my eyes to the old stone face, I seemed to hear it say derisively, in the language of its ancient worshippers: '*Bey ani*' — 'It may be so.'

When the time came for me to ask the Governor of Yucatan for permission to survey the lake, I noticed a certain hesitation in his manner, and attributed it to reasons of state. He granted the permission, making it plain, however, that his Government assumed no responsibility in the matter, and asked that he be given a copy of the survey. His parting words were: 'Pleasant trip and may God aid you.'

As I walked elatedly through the archway of the Government Palace, I began to ponder this pious wish, and it seemed more like a final benediction than a simple good-bye. I learned from events what the Governor had in his mind.

In due course Gonzalez, my assistant engineer, and I reached Peto, a frontier city, picturesque but of sad renown, where nearly every family has its own tale of terrible tragedy and bloody reprisals, not always on the part of the *Sulevados*. The Governor had kept his word; the authorities received us kindly and we were able in a short time to recruit a sufficient number of hardy men used to life in forest and jungle.

At early cock-crow of one morning, we passed through the silent streets and then the outskirts of

the still sleeping city. Little fruit bats flitted among the tree branches above us, and a species of large goatsuckers flitted on noiseless wings and postured daringly almost under the feet of the tolerant pack-mules as we passed the cemetery and entered the dim forest on our way to the Lake of Bitter Waters.

A league from the city limits we came to a sharp-eyed, muscular native, one of the Guardia Nacional, standing motionless in the shadow of a big-leaved tree. He was so completely hidden by the deep foliage that only when one of my men, himself one of the Guardia, but absent on leave, who knew that his companion was stationed there, called him by name, did he make himself seen.

He was one of a cordon of picked men, chosen fighters, who, hidden in the forest depths at strategic points, are ever on the lookout for raiding bands of the dreaded *Sublevado* Indians. Each of these men is equipped with explosive bombs that are ever close by them when on duty. These bombs, made of black gunpowder, heavily corded with fibre, wrapped and sewn up with green bull hide, have short fuses projecting from them. When the watcher detects signs of a raiding party approaching, he touches the fuse end with the lighted tip of his corn-husk cigarette and quickly steals away to a prearranged spot where his companions assemble. If the raiders are not too many, these men fight them to the bitter end. No quarter is given or taken by these bulldog watchers of the Guardia Nacional. They have been found dead in the forest by fellow soldiers searching later, but each dead man had taken his toll of one, two, or three

of the *Sublevados* before giving up the ghost. The exploding bomb fulfills its purpose of warning the city and the raiding party of Indians is often forced to retreat discomfited and unsuccessful. Often but not always.

A path, tough and devious, led through a riot of bushes armed with thick thorns, curved like cows' horns and overgrown by graceful running *xail* vines, to the well of a village that was destroyed in the early forties of the last century by a tigerish band of *Sublevados*. Its inhabitants were massacred, so I was told in Peto, while attending mass in the village church.

The wandering hunter or Indian planter who comes to the well to slake his thirst or fill his water gourd approaches it timorously, takes the water and quickly steals away. None of his own accord passes the night within sight or sound of the place, for it is believed that in the stillness of the deeper night or earliest dawn cocks can be heard crowing in the vanished enclosures and children wailing in the destroyed homes. It was told in Peto that each year at the day and hour of the tragedy the voice of the village priest can be heard, intoning the ritual of his sacred office to ever-silent listeners.

Despite all this, perhaps because of it, I chose to pass the night beside the well of this ghost-village, and my followers made no audible protest. The evening passed with the usual routine of chatter and storytelling, but the jests lacked fire and the stories were subdued. One by one the listeners and then the storytellers wrapped themselves in their bright-colored

blankets and went to sleep. Only the watchman for the night and I were left each to his musings and his thoughts. At last I, too, wrapped my blanket about me and took to my hammock, leaving the watchman solitary in his vigil.

The night wore on slowly. The stars chased each other across the clear sky, but for some reason I could not sleep. I could hear the gray owls hooting in the treetops over the green mound, all that remained of the village church, as I heard them hoot in the belfry of the church at Dsitas. And the ground doves complained mournfully about the mound, as I remembered I had heard them coo about the graves in the little cemetery of Piste. 'I wonder if the old priest and his flock are, like me, listening to them now,' I mused, and then I fell asleep.

The next morning I awoke, took a cold bath with water drawn from the well the night before and left out in the dew, then looked about me. Immediately all the sombre thoughts of the night before vanished like the mist before the sunburst. All about me and as far as I could see was a beautiful vision of pure white and blue. The flowers of the *sail* vine, the morning glory of the jungle, that when we encamped the night before hung their heads sleepily, folded so closely as to be hardly visible, had opened their delicate chalices of cloud-white and sky-blue eagerly to the newly risen sun. They seemed to chant in one grand chorus: 'Fling all sadness aside! Their bodies are long dead, but their souls have risen.'

We followed the narrow trails made by the wild pig, the deer, and other jungle creatures. Sometimes

it led through a jungle tangle so dense that an army could have bivouacked close by us and remained undiscovered; at other times they led through deep forests where no undergrowth could entangle us, where the trees were so large and tall that the spaces between their straight trunks were like the dimly lighted aisles of a great cathedral. We passed for hours over the blackened surface of a prairie that had been swept by fire a few weeks before. The narrow trail, on which by force of custom we took single file, gleamed whitely in the midst of the charred surface about it and through the tufts of green foliage that in places had already grown upward in the hot sunlight.

Finally we emerged into a region of ridges sometimes of naked limestone, at others, earth covered with level plains between them: grassy savannas in which were sparse clumps of wild plum trees.

The bald old knobs that crowned the naked ridge of limestone gleamed whitely in the sun, but in the little valley where I was the evening gloom was already gathering. My horse moved jerkily and stiffly, as if the joints of his knees and hocks needed oiling, and I have no doubt they did. We were on a dangerous and fatiguing trip, forced to keep constantly on the move to evade a possible surprise by the *Sublevados*, and were footsore, tired, and generally worn out. My followers were some distance behind, as yet on the other side of the great ridge, trudging along stolidly, all the springiness of the native lope having been taken out of them by fatigue.

I, on horseback in light marching rig, American saddle in place of the usual big-pommel Mexican

mount, had gone ahead to select a suitable camping spot, if possible by some water-hole. The tall reedy grass in the valley reached nearly to my horse's chest, and the flossy heads brushed softly against my knees, as my horse, following the trace of some old deer path, pushed his way through it.

Thus we went on for some time, only the swish of the grass and the strident cry of the cicada, like the hiss of a baking apple, breaking the almost primeval stillness.

With the reins held loose and my head bent forward, seeking for the signs that to a woodsman tell of a water-hole, I paid little attention to my horse, and when suddenly the heavy pounding hoofbeats changed to a quick tattoo and the horse, with a snort of terror, fell back almost on his haunches, I was nearly unseated.

In an instant I had recovered my seat, and with my heavy revolver in hand, was peering ahead in the direction of the horse's frightened gaze to a spot where the grass seemed thinner and lighter. For a moment I saw nothing and fancied that a passing boa or some such creature had frightened the animal by its sudden apparition, but when I tried to urge him on he would not budge, stood trembling, the whites of his eyes showing, and snorting wildly. Then I saw the grass-tops wave in front of us, and at the same instant appeared the great round head and close-cropped ears of a jaguar. My horse was waltzing so that I had to turn my attention more to him than to the jaguar and, by the time I had conquered the horse's terror, the jaguar had gone.

I meditated a moment on the sudden encounter, and was about to take up my task, when once more I saw the grass-tops move, and the jaguar's head appeared again. This time, as before, he looked at us in a curiously indifferent manner and then resumed his promenade. His cool, disrespectful manner piqued me and excited my curiosity as well. With my revolver at a steady aim, I was about to fire when a glance at the eyes caused me to lower my pistol uncertainly; then the creature disappeared once more. They were unlike the eyes of any other jaguar that I had ever seen; not the usual lambent yellow, but a dull bottle green, the color of green glass dulled by long exposure.

I got off my horse, putting the lariat firmly under my foot so that no twitching on my bridle arm would disturb my aim, and then, when next the head appeared, I put three bullets in rapid succession, one behind the shoulder, one near the spine, and one in the bowels; my usual points when I can reach them. The great creature leaped high above the grass-tops and then collapsed, seemingly to half his size, nearly at my feet; his claws tore up the grass by the roots in their convulsive retraction, and then he trembled and died.

It was an immense creature for a jaguar, lacking but a few inches of seven feet from mustached lips to tail-tip. It was so old, thin, and scarred that the skin was useless, and its teeth were worn and broken. My natives, all old jaguar hunters, said that they had never seen such eyes in a jaguar's head before. Then we went on some ten yards or more to where he had promenaded as it seemed; we found there a

smooth worn path, grass-killed and bare, nearly twenty yards long, intercepting the trail that I was on. It seemed clear that for days, perhaps for weeks, he had been ceaselessly travelling up and down this path, without food and possibly without drink.

With those eyes, the broken teeth, and the travel-worn path before our gaze, we were in one accord, that it was an encounter with a veritable mad jaguar. It was the belief of all of us that in some desperate struggle the fangs of a rival or of a panther, possibly the sharp upturned tusks of a wild boar, had penetrated the skull and produced a brain lesion that accounted for the strange appearance and stranger actions.

At last we came upon the lake, a narrow body of water over twenty miles long. The natives were right; its waters were salt and it was not the salt of the sea. I took some of the water back to Cambridge, Massachusetts, and the Harvard laboratory tests indicated that it held in solution considerable Epsom salts. But we did not need the analysis to furnish us with this information. We were forced to use the water as a beverage for some days until I noticed a constant upheaval of the surface a hundred yards or more toward the centre of the lake. Taking a couple of lusty native swimmers with me, each armed with a heavy and sharp machete — there were crocodiles, not alligators, in that lake — I swam out to the turmoil of water and found a good, sweet spring bubbling up from the lake bottom. After this we had no more cracked lips, scalding mouth sores, or other annoyances due to the water supply.

Fortunately, it was on the return trip that the *Sublevados* turned their attention to us. A large war-party of these ferocious Indians took up our trail and we were forced to ride our best to get away from them. At one time, when we were about three miles from the point where we knew a Guardia Nacional outpost was hiding, and thus free from danger, we left a large pile of *tortillas* near our camp for them to eat when they came up later, for one must be polite and pleasant under all circumstances. Then we rode on and reached Peto, intact and highly satisfied with ourselves because of that fact.

CHAPTER VI

THE MISSING MONOLITH

Soon after I began my work among the ruins in Yucatan, I found that I must do a great deal of mould-making in order to obtain the best results. Before leaving the United States I had learned from competent instruction the art—for it is an art—of making *papier-maché* moulds. These were very satisfactory in some respects, but as the work progressed, I found occasions when they were not wholly suited to my purposes. After a series of experiments, I made such improvements on the old French method of *papier-maché*, and the later German one of *staff*, that I felt competent to deal with any situation that could call for moulding and casting in my special line of research.

∩ In order to explain the importance of moulds and castings made from them to archæologists who work on the carved wall surfaces, sculptured columns, and figures in the round, especially to those who uncover these ancient edifices for the first time, I will sketch briefly the method we usually followed in Yucatan jungles.

Often the only way the ruins can be located is by climbing the tallest tree at hand and noting in the distance the rounded mound of tree growth that looms above the general forest level. To reach the place thus discovered may take hours, or even days, of hewing and slashing a narrow path through the

dense undergrowth. The running vines covered with thorns are almost as tough and impassable as a wire entanglement.

The structures are generally buried in the foliage and the shadows of huge trees, their outlines blurred by heaped-up earth, vines, and bushes. By the rules of archæology, photographs must be taken showing things as they are before being disturbed by pick, spade, or axe. With an airplane, an observer, and a pilot, all this would be easy, but we had no airplane, and even if one had been available, we were not government employees, but mere private scientists in the field, unable to afford such equipment. We tried to follow the rules as best we could by selecting the right spot and the right tree. Then, on a platform made of saplings, the photographer did his work. The negative developed and the photographs thus assured, the laborers set to work busily.

The woodsmen cut down the trees, taking great care that in their falling no wall structure or carved stonework was injured. The wall surfaces were cleared of the overhanging vines and bushes, very carefully, so as not to disturb any loose stone that might be dislodged from its place and so break the continuity of the façade. After this was done, from a scaffolding built of saplings tied together we went over the surface of the façade with fibre brushes and pails of water, always on the look-out for tinted under-surface indicating the colors that once made the façade gorgeous.

Only an archæologist or an artist can imagine the pleasure that came to me when the scouring brush,

skilfully applied, brought to light inscriptions hidden for long centuries beneath the thick mold. It was these discoveries of hieroglyphic writings and low reliefs buried beneath the débris of age that impressed upon me the importance of moulds and of casts made from them as material for scholars to study and decipher. Photographs, no matter how skilful the operator, cannot always be taken under conditions favorable for producing positives clear and precise enough for study. A mould rightly made can produce a cast as accurate and clear as the object itself, often even clearer, for the low reliefs or deeply cut glyphs are generally so stained by earth acids and indelible mold blotches that the outlines cannot be accurately observed in place.

The casts are in monochrome, of course, and when they are placed in the light best adapted for observation, they reveal every line and outline, however faint in the original, and the cracks in the stone or the false lines eaten by the earth acids working on the limestone surface of the original can be easily recognized and eliminated. These casts can, if desired, be given the exact coloring of the original. That fact came near to making me trouble.

The Director of the Museum at Merida had always been very courteous to me, allowing me to make photographs and casts of certain objects in the Museum that I had desired for study and comparison. As a slight return for his kindness, I took a cast from the mould I had made of the great serpent head on the façade of the Serpent Temple at Uxmal, and had my artist, who was an adept in this class of work,

paint the cast the color of the original. The artist did his work very skillfully and the huge cast was placed in a prominent position in the Museum, where it became an object of curiosity to many and of especial interest to some who were not my friends. A short time later, the authorities of Merida received a communication from the City of Mexico, asking 'by what authority had Mr. Thompson removed the head of the Serpent from its place in Uxmal and brought it to Merida?' An investigation was ordered, explanations were made, my enemies were abashed, and the episode was over.

One incident of many in my long and active work in the making of moulds and their casts stands out clearly in my memory. For a long time the head of that famous institution, the Peabody Museum of Harvard University, had dreamed of seeing reproduced, full-sized and in all their majesty, some of the wonderfully carved façades of these great ruined structures buried in the forests of Yucatan. My own dream was to make the learned professor's dream come true, and we had often talked the matter over.

When the great World's Fair of 1893 was planned and its managers elected Professor F. W. Putnam, of the Peabody Museum, chief of the Departments of Anthropology and Ethnology, they put these dreams in the way of realization. He wrote me at once to make direct moulds, full-sized and absolutely accurate, in *papier-mâché* and *staff*, of certain typical façades in the ruined groups of Yucatan, the finest existing remains of the once great Maya civilization. I was more than willing to undertake the task if the

consent of the Secretary of State could be obtained. This consent was duly secured and I was granted an unlimited leave of absence. It is the first and only time, I think, in the history of the Department of State, that an American Consul has been granted such a privilege.

Porfirio Diaz, President of Mexico, with broad-minded liberality, gave the project all possible aid; and with such powerful support, I soon had the proper materials accumulated, the supplies arranged for, and only awaited final instructions from the head of the Department. When these instructions did come, I confess I was somewhat startled. It was desired and expected that I should not only mould and cast the entire structure of the beautiful 'Labna Portal,' but also certain large sections of the 'Governor's Palace,' and 'The Temple of the Serpent' in the ruined group of Uxmal.

The moulding of the Portal at Labna I had expected to undertake. The ruined group of Chichen Itzá was well located and healthy, but the making of the Uxmal moulds was more difficult. To explain adequately what these ruined structures are, and how they look, would require a volume, and the explanation would even then be incomplete. I can therefore only attempt to indicate what it meant to try to make moulds of these wonderful stone façades.

Uxmal is one of the two largest groups of Maya ruins in Yucatan. Like Rome, when in the full tide of prosperity, with its aqueducts in clean current and its reservoirs filled, Uxmal was doubtless healthy and teeming with a contented people. Now, with its re-

servoirs mud-filled and stagnant, the home of wild water-fowl and an occasional alligator, the whole region is a pest-hole, a breeding-place of malignant fevers, the home of dancing clouds of virulent mosquitoes. John L. Stephens, in his interesting work, 'Incidents of Travel in Yucatan,' says: 'Among all the haciendas, Uxmal has a reputation preëminent for unhealthiness. Every person who had ever worked among the ruins had been obliged by sickness to leave them. While working the camera,^{*} I received a note from Mr. Catherwood saying that his time had come, that he had a chill and was in bed. On my return, I had a severe relapse, and Dr. Cabot, perhaps out of pure sympathy, joined us. We only wanted to get away.'

To make the required casts would take several months of steady work which from its very nature must be done in the open, exposed to the hot sun, the miasmatic mists, and the clouds of mosquitoes. The work must be done at all hours, and if, at unexpected times or after a hard day's work, heavy winds arose or rain-clouds came up, everyone must turn out and stretch the protecting tarpaulins over the façades, else, with a ripping and a tearing or a soft mushy thud, the green moulds, costing time, thought, and money, would come sliding to the ground in a shapeless mass of pulp. And all this in a place where a few hours' stay fastened on Stephens a fever that troubled him all his life. Nevertheless, I determined to accept this challenge and, making my will, I began the pre-

^{*} One camera used at this time by Catherwood was the so-called 'Camera lucida.'

liminaries of the work, with a grim determination to accomplish the task or accept the logical consequences of the audacious undertaking.

I attacked the Labna project first, for two reasons. I wanted to train my men on the smaller, though no less important, Portal, so that, when I came to the great problem at Uxmal, I could set to work at once with an expert body of workers. My second reason was a rather lugubrious one. I was decidedly of the opinion that when the Uxmal job was concluded, neither I nor the men under me would be capable of much work elsewhere.

In due time the work at Labna was carried to a successful finish and the long train of pack-mules, each laden with its burden of moulds, was on its way to the frontier plantation of Tabi, where the moulds were to be repacked into larger cases for transportation on carts to the frontier town of Ticul. In this town, nearest to the sites of my operations, I had my stores and occasional headquarters.

When the last case was packed, marked, and stored, I assembled my native workmen, a glossy-skinned, sturdy lot of men, and told them clearly, what most of them knew before, that Uxmal was probably the most unhealthy spot in Yucatan, but that nevertheless work must be done there and much of it. Those that chose to go there with me should receive good pay, good care, and good food; those that did not want to accept work in such a dangerous place were free to go elsewhere. Only three out of forty natives left me, for the time, and one of them came back after he had enjoyed a long-deferred spree.

At last the ancient ruined group of Uxmal was again inhabited. From the high front of the spacious chambers of the Governor's Palace and the lower tiers of the House of the Nuns, bright fires were burning. As the dusk of the first evening came on, jokes and songs commenced to enliven the silent forest roundabout us, I can only hope that the shades of the departed Nuns did not hear or at least understand all that was sung or said in their old abode on that first night.

The men, now experienced workmen, made short work of the preliminaries, and in a few days, the laboratory for the making of the paper pulp and the vats and presses were set up under the direction of my assistant, Pedro Cardenas, a bright young native I had trained. Time passed, the work went on apace, but the sick-list grew. The work on the magnificent façade of the Temple of the Serpent was finished and only that of the House of the Governor remained to be done, but at what a cost! By the greatest good fortune not a life had as yet been lost, but nearly half of my men were either sick in their hammocks, or yellow-skinned caricatures of their old selves.

I was as sick and as yellow as a white man could be and still keep on his feet; but by this time I had ceased to be myself and had become only an animated will. I thought of nothing but the rapidly growing pile of moulds; I saw nothing but the work before me. At times, and especially at night, I felt myself becoming a single clear, luminous point of light, and that light focused on the space of façade yet unmoulded.

On one hot day, when the sun shone like a disk of heated brass in a smouldering sky, Pedro Iuit, whom I had sent into the jungle to shoot some game with which to make broth for the sick men, came to me and told of a glyph-covered stone column that he had found in the jungle not far distant, buried in the growth. Despite the intense heat, I felt cold and shivery and I thought that a walk in the hot sun might warm my fever-thinned blood. With my camera pack and a moulding outfit carried by Iuit, I followed his lead. As I went on in the breathless heat of the high-herbaged jungle, I really felt that the walk was doing me good. When I reached the object and found it to be a true monolith, sculptured in bands of hieroglyphs, and not a simple pillar or sustaining column, I was quite animated.

We set to work at once upon the monolith. I made my notes while Pedro cleared away the growth. The monolith was cemented to a level space, once raised, but now nearly flush with the surrounding ground. It had been broken in two, but the strong cemented base had held and the lower portion was still firmly fixed in place. The upper portion was close by, massive and heavy, but I felt a strange exaltation, as if I was capable of infinite effort; as if I had within me infinite resources, mental and physical. By the aid of lever poles and stone wedges we restored the fragment of the monolith to its proper position. Then, while Pedro Iuit cleared away the rest of the growth around it, I arranged my camera and photographed it twice, as was my custom.

The photograph was made and the negative well

cared for, as the photographer who afterwards developed them testified; and then we commenced the moulding of the monolith. With unusual care I did the moulding until the impressions were made and filled. Iuit said that I told him to put on the last 'skins' and then stop. I felt nausea coming on, and, going a little distance off, was very sick. That is all I can remember. The rest I must tell in the words of Pedro Cardenas and the faithful Iuit.

'Pedro Iuit came to the foot of the Palace terrace and called loudly to me,' Cardenas said. 'My arms were deep in pulp and glue, but the voice of Pedro Iuit sounded loudly, and I went jumping down the side of the mound. I found Pedro Iuit, with the pack of the camera, and leading Don Eduardo by the hand as one leads a blind man. Don Eduardo's face was as pale as yellow wax, but the whites of his eyes were as raw red meat, and when he spoke, his voice trembled and was weak. It was not his voice.

'We led him to his hammock and he took some gruel, which seemed to awaken him and give him strength, for he went by himself, of his own will, to the bottle of bitter medicine [Wauberg's Tincture] and took some of it, then he rolled himself up in his thick blue blanket and fell asleep. I went to my little altar, before the San José, and prayed and lit candles and made promises which I kept. Doubtless these helped to save Don Eduardo from the death that certainly was near him.

'I was working on the mould, placing one layer of paper on another and beating it in, until it seemed to me that the mould was thick and stiff enough,' said



THE LOST MONOLITH



MAKING MOULDS OF THE PORTAL AT LABNA

Pedro Iuit. 'I turned to ask the master. I saw him leaning against a tree, and it seemed to me as if he were going to fall. I left my work and ran swiftly toward him, but, before I reached him, he turned and came toward me, with his head held high, as the blind do when they walk. He said to me, "Pedro, we must go back now, for my feet are cold and I have cramps. I must get to my hammock. When the mould is dry, come back and strip it. Let us go." When I heard these words, I was very much afraid, and I took the camera pack on my back and we returned toward the workings. When we had gone about halfway, the master asked me to take him by the hand and lead him, as things looked very dark to him and he could see nothing clearly. Then I was still more afraid, and when we reached the foot of the great mound, I stood still, not daring to leave the master, and called loudly until Pedro Cardenas came.'

For several days I was in a state of high fever. Then, owing to good care and the proper medicines, aided by a fortunate change in the weather, I began to improve, and by the time the last moulds were made, I was up and directing things as before. Seven carloads of moulds were cased and forwarded to Progreso. Then, when the last case was, with myself, safely on board the good ship Thornhill, Captain Wetherell, and I knew the work was at last done, I felt the something within that had held me upright and tense loosen and give way all at once. I collapsed, mentally and physically. I had good care on the steamer, the ministrations of a devoted wife and the help of kind friends; and when I reached New York,

I was in a much better state than I had any right to expect.

Of the discovery, the photographing, and the moulding of the monolith I have only the faintest remembrance. Pedro Iuit died of fever shortly after I returned to Yucatan and, but for the photographs and the mould itself that poor, faithful Pedro Iuit cared for and stripped while I was helpless and wandering in mind, I should myself half-believe that the monolith, with its ancient inscription, was but a figment in my disordered intellect. Since then many scientists have sought for the lost monolith, but in vain. I might, very probably could, find it once more if I tried, for I am rarely at fault in my search for a monument when I have the least clue, but that will never be. I have done my work in Uxmal, have paid my price for the doing of it, and shall probably never again delve for these things in their hidden places. The mystery of the 'Lost Monolith' will never be solved by me.

I could tell an interesting story of the work of erecting the casts on the exposition grounds at Chicago, but as I am writing only of the things that happened in Yucatan, I will only add a transcript of the Official Report of the Massachusetts Board of Managers, World's Fair, page 161:

The recent work in Yucatan by Mr. E. H. Thompson, a Massachusetts man and United States Consul to Merida, acting as assistant to Professor Putnam, and for the Peabody Museum, was shown partly within and partly outside the Anthropological Building. Ten thousand square feet of moulds were taken by the expedition under his

charge, during fourteen months of hard labor and serious risk of life in the dense malarial jungles of Yucatan. The principal sections chosen as characteristic examples of the architecture and sculpture of these magnificent ruined temples were the Portal of Labna, with dimensions of twenty-five feet in height and forty feet in width; 'The Straight Arch of Uxmal,' twenty-seven feet high and twenty-two feet wide; the famous façade of the 'Serpent House,' and three different sections from the House of the Nuns.' Full-size reproductions of these sections were made in *staff* and erected on the grounds just north of the Anthropological Building. Everyone who visited the Exposition will recall the weird effect produced on the imagination by these old monuments of an unknown past, standing in stately grandeur amidst all the magnificence and beauty that the landscape art and architecture of today could devise.

CHAPTER VII

LOST IN THE DESERT

A GREAT deal of nonsense has been written about the jungle and its dangers and about these dwellers in forest and jungle whom we call Indians. According to some popular tales, when the rash traveller enters the deep tropic forests he takes his life in his hands and balances it perilously on his finger-tips. Big snakes hang festooned from every branch, eyes like diamond points, drawing the fascinated wayfarer into their waiting coils. Should he by some lucky chance escape the attention of the predatory reptile, he must still run the gantlet of prowling beasts of prey. Some great cat, the jaguar or the panther, crouches behind every tree not previously preëmpted by a boa. With bared teeth and nervously twitching tail, it prepares to launch itself on the tempting, heaven-sent breakfast.

I can speak with some authority of the jungles of Yucatan, and no sane person will deny that there is at times real danger there. But there is danger also in a great city, and while the peril is of a different kind, I believe there is very little choice between the two. The jungle troubles are mostly trials, not dangers: the stings of insects like the wood tick or the ant, and the pricks of spiny plants like the nettle, the *tzubin* thorn, the agave or the cactus. By the jungle-wise, whether white man or Indian, these annoyances are taken according to temperament just as in cities

and highways one takes traffic delays, détours, and tire troubles.

One unfamiliar with the ways of the jungle is unwise if he ventures far into its depths unaccompanied by a guide. He will become confused and perhaps lost, as a man of the jungle might if left to himself in a city. He may even be hungry and thirsty as an Indian ignorant of the manners and language of the city might find himself, even in the midst of plenty. For those versed in the lore of the Yucatan forest and jungle there is food on all sides ready for the taking. There are succulent piths, herbs, and roots, birds' eggs in their season, the larvæ of certain wasps, and many fruits and berries. The matter of drink is even more simple.

There are water-filled pot-holes called *satenjas* in the ledges that hold the water deposited there during the rainy season. Some of these natural reservoirs have been so long known and used by the inhabitants of the region, both man and animals, that their rims are worn smooth. If, by reason of some great drought, all these reservoirs in the rocks become dry, there still remain other means by which the traveller may quench his thirst. There are hanging vines that need only to be cut to furnish a fine thin stream of a watery sap that is water for all practical purposes. And, above all, especially in the deeper forests, there is the Water-Carrier.

This plant, which has saved thousands from suffering the pangs of thirst, grows as a parasite, clinging to the trunks and limbs of big trees. It has long narrow leaves with scarlet blossoms growing in rows at

the end of long stalks or stems, and belongs, like the pineapple, to the family of Bromelias. At the thick swelling base of the plant is a veritable well of water, needing only to be tapped with the point of a knife, or even with the sharp point of a stick, to yield up its contents.

Sometimes, especially at the end of the dry season, a colony of big black ants — the kind that sting and sting fiercely — takes possession of a plant and represents the rifling of its stores. In this case the wise man will prudently leave it and seek another. Others are easily found, for Mother Nature is generally prolific in the deeper forests and jungles of Yucatan.

If, however, man is imprudent and careless, he may suffer in the jungle even as he can in the cities. This fact was brought home to me when I became lost in the desert.

'*Menan ha*' — 'There is no water' — said Euan, my Indian guide. He held the big water gourd up to his ear and shook it, listening incredulously, and then, sensing the importance of the emptiness, he looked at me and said again, '*Menan ha*,' adding slowly '*mish humpet*' — 'not a drop.' He had just before confessed to me that he had somehow missed his way, had taken the wrong path, how far back he did not know, and could not tell just where we were.

It was not to be wondered at. Even an Indian living in the region might be excused for missing one path in the maze of paths that crossed and recrossed each other in the tall *taje* stalks, pathways made by the wild pigs and the deer. Euan, although born in

the district, had for many years been absent from his old home. We had to face the fact that we were lost in the desert without water. To make the measure full, we were on foot in the dryest of dry seasons.

Native hunters, passing our encampment some days before, had told us of some *X'Labpakes* — old stone walls — and had added, '*No hoch*,' meaning that they were big, as well as old. They also said that these walls had upon them carved figures and also strange signs that, as described by them, could only be hieroglyphic inscriptions. Euan said that he had seen the same old walls when he was a boy helping his father make his cornfields, and he was sure that he could find them again. The hunters said, '*Bey ani*' — 'That can be so' — bade us farewell and went on their way.

When the hunters met us, we were encamped waiting for supplies. Two of my men, riding our horses and driving the pack-mule with them, had gone for them with instructions to wait for the weekly home mail. They would be gone for several days. Euan said he was sure two days would be enough for us to find the old walls and one day would be sufficient for me to look them over. If they were important, we could come back later to make a thorough investigation.

Everything seemed to be right for the purpose and, leaving two natives as care-takers of the camp during our absence, Euan and I started in light travelling order. Euan carried, besides his bright-barred blanket, the pack of provisions, small in size — for we both had guns with which to live off the country

— and a large water gourd well filled suspended from his back by his forehead band. I carried on my back, knapsack fashion, my blanket and a change of under-clothing. My ammunition belt, a *sabucan* containing my small medicine-case and other minor necessary things, my small water gourd swinging at my side, and my shotgun over my shoulder, completed my equipment.

We started so early in the morning that the little fruit bats were still busy with the wild plum fruits. Before many hours we reached the edge of the jungle beyond which lay *el desierto* — the desert — on the outer edge of which, so Euan said, stood the big old walls.

All over that indeterminate, almost uninhabited, region between the populous portion of Yucatan, Campeche, and the Federal territory of Quintana Roo, are tracts of land where the soil is so thin that the limestone bedrock, covered with stones and dotted with pot-holes, is far more visible than the red earth that covers it here and there in patches.

When these stony, arid places are small, the natives call them *dzekeles*, but when they are large, often many square leagues in area, they are known as *desiertos* or deserts. The one that we planned to cross was large enough to be called a desert. In the rainy season these places become, almost in a day, scenes of busy life and often visions of beauty. The *tzubin* — a small locust tree or large locust bush, I hardly know which to call it — becomes covered with bright yellow blossoms and shiny green leaves. Several kinds of morning glories, called *xails* by the Mayas, con-

volvuli by the botanists, grow luxuriantly and seem to share in a friendly way a place in the sunlight with a small trumpet flower. The scarlet of this flower with the whites, blues, and purples of the morning glories, all entwining, combine to bury the dead bushes and mask the living ones beneath mounds of glowing color.

Beneath all this beauty there is another world, a world of shadows, in which bloated spiders of livid colors weave webs from bush to bush, with meshes so strong that they can entangle large insects and even small birds. Still deeper in the shadows snakes and lizards chase insects and hunt rodents and are themselves preyed upon by the opossum, the armadillo, and the wild pig. These, in their turn, are the chosen victims of the tiger cat, the fox, and the panther. I have often seen the well-cleaned shell of an armadillo that had served as a delicate tidbit for a hungry jaguar. In this dark underworld of deep shadows and earth odors, one might expect these things. It is a region where the law of hunt and be hunted would seem to prevail naturally.

There are two plants growing in the *dzekeles* and even in the deserts in the wet season that make sixty minutes in the life of a traveller, whether on horseback or afoot, an hour of torment, one to trouble the dreams in a week of nights thereafter. One is a tall plant, the *taje*, which has a semi-hollow pithy stem, large leaves, and bright yellow flowers covered with a pollen that enters the eyes and throat, inflames the membranes, and makes one sneeze. Then, too, it grows so tall and thick that it shuts off all the breeze

until the horseman or foot traveller feels as if he was travelling in an oven.

The other plant, known and hated by the natives under the name of *pica pica* — 'bite bite' — is a graceful running vine with an innocent-looking pod covered with velvety hair like bristles. When I say that it is known to the druggist as *cowage*, I think that I have said all that is necessary. These two plants make every hour spent on a desert trail an hour of discomfort, if not actual torture.

And I was afoot in the desert, in the dry season, lost and without water.

There was a tiny barely perceptible crack in the bottom of the big water gourd. It had not been there the night before we started. A Maya may neglect to make secure his ration of food, for he does not fear a moderate amount of hunger, but he never neglects to make sure of a sufficient supply of water. Not without reason was one of his most venerated deities the God of Water, the Rain God.

We remembered that just as we were getting our first sleep a family of inquisitive skunks out on an excursion, finding the door open because of the heat, had paid us a visit. In the confusion of trying to make them leave without creating a scandal, the old water gourd must have received an unnoticed but fatal injury.

It was partly my fault that we were so long in the desert and so little advanced on our journey before we discovered what had happened. Euan had told me that even on foot we could reach the old walls and camp before sundown, so I saw no occasion for haste

and had loitered on the journey. I had never been in a large *dzekele* before in the middle of the dry season and was interested in watching the behavior of the desert-born plants and animals under those conditions. I stopped to note the habits of the quick-moving ant-like insects that inhabit the *tzubin* tree that I have already mentioned.

At intervals along the trunk, under the yellow blossoms and projecting from its limbs, are sets of wicked-looking thorns, thick at the base, tough and horn-like outside, ending in a needle-like point that seems to poison as well as wound. The ant-like insects seem to have some kind of understanding with the *tzubin*, a friendly arrangement whereby the ant, in return for the right to bore out the thorny base and make it his home as well as to gather honey and pollen from the yellow flowers as food and drink, undertakes to defend the plant with his life if need be against all intruders. I could barely touch a flower of the plant or even a leaf when an ant would glide out of a hole in the nearest thorn and give my finger a sting as sharp and painful as a red-hot needle-point pricking the skin. These creatures are so eager to sting and so enthusiastic in their efforts that they double up their bodies in their fury and thrust in the sting, regardless of their own lives.

Interested in these and similar observations, I loitered along. Meanwhile, to quench our natural thirst and to allay the inflammation of the membrane caused by the dried pollen of the *taje* plant and the poisonous filaments of the *pica pica*, we drank again and again until both smaller gourds were empty.

When we stopped to replenish them, we discovered the disaster. We were too far along in the desert to think of turning back, so we kept on.

The hours passed and we plodded on desperately. We knew that we were headed in the right direction — the sun told us that; but when or where we should strike the other edge of the desert we could not tell. With the hot sun pouring down on us and all breeze shut off from us by the tall stalks that bordered the narrow path, our eyes inflamed and mouths burning as if with a fever, we suffered acutely. I put a silver coin in my mouth, hoping to excite the salivary glands to work and so allay the fever, but the coin clung to my tongue, glued there by the half-dried mucus, until I dislodged it and put it back into my pocket.

The sun was getting lower, when a little to one side of the path beaten out by the hoofs of the deer and the feet of the wild pig, we saw that one of the countless pot-holes in the limestone bedrock held well down toward its bottom a liquid that seemed to be water. We could not believe our eyes until I reached down and put my finger in it, then looked at the finger wet and coated with something brown. I tasted it. It was water.

Carefully, so carefully as not to lose a single drop, I filled a gourd bowl from my food pouch. The stuff was brown in color, almost viscid, but still it was water that could be drunk. I took a clean handkerchief from my pack and strained the liquid; the water passed through into another gourd bowl taken from the food pouch of Euan. That which remained in the strainer consisted of brown vegetable particles and

the bones of a pigmy owl that, seeking to quench its thirst, had fallen into the hole and died there. We threw the strainings aside and repeated the operation until not a drop of water remained in the pot-hole.

Each of us drank, not enough to quench our thirst, but sufficient to give us strength to push on. A little before sundown we reached a small *jacal*, a one-man hut, in which an old Indian lived by planting a small cornfield in the wet season and by shooting in the dry season the wild fowls and animals that came to drink at a big *aguada*, a depression in the bedrock. The *aguada* was so large and deep that it always held a sufficient supply of the rainwater that drained into it during the rainy season.

That poor lone Indian was a fine fellow in his way and had evidently seen others in the same state as we were when we came to his door. He looked us over keenly before he said a word, and when we mumbled that we wanted 'water, much water,' he shook his head sharply, said something, I did not catch what, to Euan, and shut the door behind us. Taking each of us by the arm he led us to a near-by shed in which was a native washtub and two pails, one filled with lye made from ashes that still remained in the bottom of the pail, the other empty. He told us to take off our clothes; then, picking up the empty pail, he started toward the house. Before I had got my clothes off — Euan had shed his with a twist and a shrug — the old native returned and began to throw warm water over us impartially from a small gourd. Never in my life have I had a more refreshing bath. I returned to the house, drank some hot water, and slept,

drank more water, always hot, and then slept until morning. When I awoke, I felt as fresh as a bird, but wanting more water, I got, not water, but thin corn gruel, hot and salted, not sweetened.

Then, refreshed, under the guidance of the old native we started for the old walls — *X'Labpakes*. We found them, and they were worth all the trials and privations that we had undergone to find them. There were beautiful carvings and wonderful inscriptions written in that language that was spoken and perhaps written centuries before Christ was born. And among them was one that gladdened my eyes, for it was that rarest of carved writings, a date series. Later I took moulds of these inscriptions, and casts made from these moulds can now be seen in the Peabody Museum at Harvard University and in the National Museum of Mexico. I shall deal in another place with the significance and importance of these Maya date series.

CHAPTER VIII

BEARDING THE JAGUAR

IN FRONT of almost every important chamber in the ruined cities of Yucatan is found a conventional figure of a jaguar of the *chacmool* — red jaguar — type. This formidable cat, the American tiger, has an important place in the mural decorations and in the architecture of the ancient Mayas, and is nowhere portrayed more realistically than on the famous frieze in the Temple of the Jaguars at Chichen Itzá. To a race armed with no better weapons than darts and spears, the jaguar of the Middle American jungles presented a terrible menace, and this fear was bound to find its reflection in the religion and art of the Mayas, since fear is the first basis of all primitive religions.

The legends and folklore of the Mayas pay similar respect to the jaguar as the outstanding danger to man in the animal kingdom. The introduction of firearms has given the modern Maya the advantage over the cat, but even today the jaguar remains a favorite subject of conversation when hunters meet about the campfire. Once upon a time when I was encamped in one of the ancient cities, San Ek, good cook and better hunter, told after the evening meal this tale of the Cave of the Jaguars:*

‘Some people hunt in droves, like the little wild

* The Cave of the Jaguars is a chamber in the Cave of Loltun, the walls of which are adorned with the carved heads of jaguars.

pig; others like to run in pairs. But I like best to hunt alone. One afternoon I started to hunt a deer. I went alone, as usual, with only my dog Filibras. I reached the distant water-hole just as the sun went down. Close by it was an old cornfield filled with green herbs and vines that the deer most like to feed on. High up among the forked branches of a tree by the edge of the cornfield I swung my small hunting hammock and waited for the moon to rise and the deer to come and feed. Filibras curled up at the foot of the tree, as he had often done before.

'The night passed and no deer came near enough for me to point my gun at them, although I heard them several times in the distance, munching the herbs and tearing the vines. The darkness of the early morning was over all things and I was cramped and cold and yawning, when all at once Filibras growled and snapped at something in the darkness; then gave a howl that was cut short as if by the stroke of a machete. I hung out of my hammock and tried to see what was going on down below, but I could not because of the deep darkness that hid all things.

'I loved my dog, for he had been my companion on many a hunt, but I loved my own life more, so I just sat still, high up in the tree, and smoked and thought and wondered, waiting for daylight. What was it that killed my dog? Was it *Chan Kisin*, one of the small demons that wander around in the darkness, working evil?

'But then on these clear moonlight nights, the great *Yum Chac* himself, the Lord of the Forests and Fields, goes around caring for what is his, and just

before the cry of the dog I saw a light falling from the sky. Everyone knows, when he sees this, that the Lord of the Fields is near and that the falling light is the end of his cigar, spent and tossed away by him. No demon, great or small, would dare come near when the Lord of the Fields is passing.

'The time passed as I sat smoking and thinking and things began to grow clearer in the dawn. I had in my pouch a bullet that had been dipped in water, blessed by the priest; and with my machete I cut deep upon it the sign of the cross. Before leaving the hunting hammock I took the deer-shot from my gun and carefully put the bullet in its place. Then I felt better and easier.

'I climbed down to the ground warily, looking on all sides for signs of evil spirits, but found none; then I went to the spot where the dog had been, and found, not the dog nor the sign of a *Chan Kisin*, but the tracks of a big *chacmool*, a red jaguar. I am afraid of few men and no animals, but I am afraid of evil spirits and am not afraid to say it. When I saw the tracks of the big red cat, I felt, in place of fear, a great rage that poor Filibras should have been killed by a jaguar.

'Jaguars have been my chosen game, and that of my father before me. He was a jaguar hunter by trade, and on the very day that I was born, he killed his biggest one, alone and armed only with his heavy machete. I vowed to spit upon the dead carcass of the dog-killer and then looked up the trail, to follow it to the end, be it near or far.

'The trail was so clear that I followed it easily.

The tracks were those of a very large beast, one of the largest that I had ever followed, and I knew that, unless the skin was badly scarred by old fights, I could sell it for a nice little heap of silver dollars at the next Yzamal fair. I looked at the priming of my gun and saw that my machete was in its sheath; then I took the trail keenly.

'The big jaguar had ranged wide that night and the trail was a long one. He had met no prey worth the stalking, that was clear; and that was the reason why he took my dog, for want of something better. At last, deep in the depths of the forest, away beyond the cornfields of those who planted far from home, I came upon the mouth of a deep cave and the tracks led into it.

'Tracking and killing a jaguar in the open is one game and tracking and killing him in a dark cave, deep down underground, is another; but I could play both games and did. I put my gun down carefully and with my machete cut a bundle of long dry fagots of *ta ché* wood for torches. I split the ends of each into fine splinters that they might light quickly and flame brightly; then, lighting one with a spark from my flint and steel, I climbed through the hole down into the cavern. I made a clear trail as I went along so that I might find my way back easily, for there were many false ways and blind passages.

'The cave was so dark that the torch gave but little light, but as I went along I saw many stone figures and other stones covered with strange writings. Several times I went down stairs cut in the solid rock, covered with dark mold and slippery, that

led to what was in one of the dark caves used by ancient people, who knows how long ago! All at once I saw right before me a great jaguar as big as a horse, with wide-open jaws and gleaming green eyes, staring me in the face. My hair grew as stiff as the bristles of a wild boar and my skin as rough as the skin of a turkey, until I saw by the light of the torch that the jaguar was a stone one and its green gleaming eyes were stone, too, but different from that of the body.

‘When I saw this, my fear turned to wonder and then to curiosity. I looked about me and saw that all the knobs and projecting points of this cave chamber were carved into the heads of jaguars, with open jaws and hollows in place of the eyes. The shadows from the flaring torch made the eyes and jaws seem as if they were moving, and I could hardly keep myself from believing that they did move. I was going up to look better at one a little distant when I saw in a dark hollow beneath it a pair of eyes that gleamed and flickered in a way that could not deceive an old hunter. The creature behind those eyes was not carved of stone, but a live jaguar and the one that I was after.

‘I went to work right away, moving quietly and very smoothly with no quick or uncertain motion. I took from my pack two dry and well-splintered fagots and, lighting both ends of each, placed them in front of me, after the manner of a cross, to serve and aid me in case the creature was an evil spirit and not a true jaguar. Then I put my lighted torch into a wall cleft with my coat beside it and, looking once

more at the priming of my gun, stepped slowly into the shadows. Quickly throwing a flaming fagot into the dark where the eyes were gleaming, I leaped still deeper into the shadow. With a great bound, but soft-footed and almost without a sound, the jaguar came out of its lair and into the open space right by the stone one, its green eyes blinking and gleaming.

'Then once more my heart grew small and almost withered up within me, for was he not a very brother of the other, the stone one? Did he not stand like him, glaring, and was he not bigger than the biggest jaguar I had ever seen before? He surely was a *uay chacmool*, a demon jaguar, a *Kisin* of the Ancient People come to life again, and I, deep down in an enchanted cave, alone with a demon jaguar, what could I do?

'But I remembered then that I had in my gun a bullet bathed in holy water and marked with a sign of the holy cross. I felt better and stronger as these thoughts came to me, and then as I looked at the wooden cross flaming on the rocky floor between me and the jaguar, it seemed to flare up suddenly, brighter and brighter, as if to show me clearer the white spot on the creature, just back of and below the fore shoulder. It was the spot that I always looked for, and, seeing it, with a steady hand drawing my gun up, I fired. The report of the gun thundered through the cave with a noise that made my head swim and brought down from the roof above thousands of little white points of stone that tinkled like glass as they fell.

'But the scream of the jaguar bored into my ears

until they ached and stung. It spun around and around, while the bloody foam fell from its mouth to the floor. Then it gave a terrible spring against the torch and my coat on the wall and sank into a soft heap on the rock floor, dead. I took off the skin and spat on the carcass, as I had vowed to do, then dug into it with my knife to find out where the bullet went that killed it so quickly. I found that the ball had struck a rib bone and split just where I had cut the sign of the cross. One piece had torn into the heart and the other had cut the great blood tube. In this way only was I able to do that wonderful thing, kill a demon jaguar at one shot and with one bullet. But for the help of the Virgin and the blessed bullet, I should surely have left my well-gnawed bones in the cave that day.'

It was during my early years on the plantation of Chichen that I had my biggest adventure with a jaguar.

I wish to make it clear that I am not a born hunter. Of my own volition I would not kill a single creature not needed for food — unless it trod too heavily on my toes. But I am fairly ready and sure with my gun. I have had to be, for he who is not had best dig fishworms and not hunt jaguars. I took to killing the tiger of the Americas because he killed my cattle first and I could get nobody else to do the job for me. The only way I could get back at the marauders was to get their number and then call them up when they were at home. In other words, I had them tracked from their kill to their dens, generally in a hill cave or near

the bottom of a 'sink-hole,' and then I had to go in and get them.

In a previous chapter I spoke of my ancestor, General Israel Putnam, and his feat of entering the den of a wolf, killing it, and then dragging out the carcass by its ears. I am hopelessly behind 'Old Put' in many ways, but I have killed seven jaguars in their dens, and if I have not dragged them out by their ears, it was because the carcasses were too heavy. It took two able-bodied young Maya Indians with their ropes to drag the last jaguar I killed out of his den into the light of day.

It was the time of the corn harvest and I had been taking photographs of the Indians gathering the *ixim*, a process that is carried on today just as it was a thousand years ago. I was chatting with Juan, the field overseer, when a tall Maya, well known to me as a hunter, came toward us at a quick lope and, resting the butt of his gun on the ground, waited for a chance to speak. I saw that his black hair was plastered with sweat to his temples and noticed a certain excitement about him unusual in a native, so I asked him what was in his mind.

'This morning my son and I went to hunt the jungle pheasant and wild turkey,' he said. 'We were hidden in the jungle and waiting for signs of pheasants when we saw a big jaguar pass in the distance. I thought to follow and shoot him, but dared not risk it, for my gun was loaded for fowl, not jaguars. So we followed him to his den and my son stayed to watch, while I came to tell you.'

With this he squatted, native fashion, under the

shade of the *cocoyol* tree, and, lighting a cigarette, waited expectantly. I was unarmed except for my ever-present heavy hunting-knife, but Juan had with him a fine shotgun I had brought him from Boston the year before.

‘How many cartridges have you, Juan?’ I asked.

‘Three, Don Eduardo, two loaded for deer and one for the quail for your breakfast tomorrow,’ replied the foreman.

‘It is a big jaguar with a beautiful skin,’ put in the Maya hunter, who had followed our conversation. He had read me clearly, all right, so I laughed and said: ‘Lead on.’

I followed the hunter, while Juan came behind me with the gun and Gollo, my young *volan* driver, a wizard in the use of the machete, brought up the rear. We went through a thick jungle growth, following the trail made by wild boar and deer, down a steep descent between great blocks of limestone until we reached the bottom of a deep sink-hole with cliff-like walls. A young native came out from behind a tree and, pointing to a dark hole in the cliff-side near the bottom, said: ‘He is still there. He hasn’t come out.’

I inquired if this was really so, after the manner of a small boy, by heaving a stone into the darkness of the hole. I got as answer a growl that sounded like muffled thunder, the kind that rattles and rolls in the distance. He was there all right.

We tried every way we could to get him to come out into the open. We poked at him and smoked him; the natives hurled jeers at him in the darkness and

insulted his forbears, but all in vain. The growls grew fainter and more distant as the jaguar slunk deeper into his lair. At last I turned to Gollo and said, 'If I go in to get him, will you go with me?' Gollo looked at me a moment with an ever-widening grin, said 'Ha!' and commenced to put an edge on his machete.

I tore off the lower part of my cotton undershirt and we filled the fibre with wild beeswax taken by Juan from a near-by bee tree, rolled it up into the shape of a big candle, and tied it into the cleft end of a straight slender pole about ten feet long. Leaving my broad-brimmed hat outside, I tied a handkerchief about my head, loaded the gun with the heavy cartridges, and entered the hole on my hands and knees, carrying the gun before me in one hand like a pistol. Gollo followed, holding the long-handled torch about six feet ahead of me, meanwhile keeping a close grip on his trusty machete.

I was sure that I was following the direct path of the jaguar, by reason of the odor and the hairs he had left on some of the small stalactite points that from time to time scraped my back also as I crawled along the cave. About fifty feet from the entrance, the low passage opened into a small chamber. Both tunnel and chamber had evidently been scooped out by the torrents in the rainy seasons of some long-past time, for the walls were water-worn and smooth, except for a large dark hole at the other end of the cave, through which at one time the water had rushed, and which was now, unless I was mistaken, the lair of the jaguar. Snuggling myself into a comfortable position, I

placed my two remaining cartridges where I could snatch them up quickly, then with my loaded gun in position I called out to Gollo, 'All ready now, Gollo. Push the torch into the hole and singe pussy's whiskers.'

Gollo pushed the torch toward the hole, but he had no chance to singe those whiskers, for, with a yell that made the cave walls echo and my head ring, the jaguar leaped out of the darkness. With eyes gleaming furiously and long white fangs exposed by the lifted black lips, it stood for one irresolute moment with forepaw lifted, confused by the glare of the torch.

The two points I have always sought, the glint of the eye and the white spot under the forearm, were clear before me, and the two shots rang, the second blending into the echo of the first. With a wailing scream, the jaguar leaped to within six feet of where I was crouching and fell on its side, its claws extending and retracting convulsively.

I quickly reloaded the gun with the remaining cartridge (the one loaded for quail) to blind the creature, if need be, so that Gollo and I could make a quick getaway. The precaution was needless, for the death tremor came over the jaguar even as I was reloading. I told Gollo to go out first, leaving the lighted torch behind, and then, still watchful against the improbable happening, I followed him, with head aching and eyes smarting, out of the stifling, foul-smelling den into the bright sunlight and the pungent fragrance of the outer world.

After breathing deeply of the fresh air, I sent two

of the Indians who had come upon the scene into the cave, each with his fagot rope, to drag the carcass out into the open where we could see it. They entered timorously, and shortly after I heard, to my great disgust, the muffled reports of two guns. 'Good-bye, skin,' I growled to Juan. When they came out, each tugging heavily at the ropes, I reproached them for what they had done. They were sorry, but unconvinced. One of them said: 'All the world knows that a wounded jaguar is a terrible creature and we wanted to make sure that this big one was very dead.'

By great good luck, owing to the dim light and their excitement, most of the two charges went over the creature's body and not into the skin, which was not seriously damaged. The carcass, trussed to a stout pole and borne by four natives, was carried in triumph through the plantation to be seen by all the people, up to the *casa principal*, where it was deposited on the stone-tiled floor of the corridor.

CHAPTER IX

A TRAP IN THE JUNGLE

DURING all my years spent in Yucatan I never had any trouble with the Indians. On the contrary, I found the descendants of the ancient Mayas a kindly, generous people, willing to go more than halfway with the white man who seeks to understand their methods of thinking. With many of them I formed close and enduring friendships. It is true that, when I journeyed to the Lake of Bitter Waters, a band of *Sublevados*, the Ishmaelites of the country, sought to test their machetes on me, but there was nothing personal in their attitude. They feared all intruders in their domain; they did not know me; and I did not wait to become acquainted. Later on, I fell into a trap set by the Mayas on a jungle trail, but the trap was not intended to catch me.

It was while I was studying an ancient Maya road which I had found far in the interior of Yucatan, not far from Coba, that this thing happened. The Mayas, like the Romans, were finished builders of roads. In the days of their greatness, macadamized roads, raised from six to eight feet above the ordinary level of the country and surfaced with hard, smooth cement, led from palace terrace to temple, from temple centre to temple centre. Such highways radiated from Chichen Itzá toward all the other great centres of population. From Coba a road led all the way across the peninsula to the coast at

Cozumel which was a sacred place with the ancients and contained many shrines. Pilgrimages thither were conducted from all parts of Yucatan.

I have described these as macadamized roads, and the term is appropriate, for the Mayas a thousand years ago built their highways on practically the same principle as McAdam adopted in the nineteenth century. The roads, from twenty to thirty feet wide, were beautifully ballasted and bound in with stones. The old road-builders had found out that, by putting the stones edgewise and cementing them together, they would not readily dislodge. The rains served merely to weld the mass together and there was no frost to act as a disintegrating agent. The cement was one part of lime to three parts of binding material and instead of sand they used a white earth which is also lime.

Many of these old thoroughfares are now covered with from three to four feet of loam and large trees are growing from this soil. When they are cleaned off, they are still better than the ordinary roads of the country, with the exception of the modern automobile routes. The only damage they have suffered has been due to the roots of the trees breaking away the smooth surfacing of lime cement and leaving a pebble-like covering.

Smooth these ancient roads had to be, for the traffic over them was all of barefoot or sandaled Indians. It is apparent that the ancient Mayas did not possess a single kind of useful domestic animal or beast of burden, and the principle of the wheel was unknown to them.

As I have already said, I had found a stretch of ancient road near Coba and was clearing off a part of it, experiencing meanwhile all the joy of the archæologist who has made an interesting discovery. Important business beckoned me back to Merida, but I was wrapped up in my work and prolonged my explorations until the last possible minute. Then, with my six Indians, I started for the Capital, planning to return as soon as affairs would permit and complete the study. As was my wont I travelled light and fast, subsisting on the same food as my men and following the customs the jungle had taught them.

As we pressed on toward civilization, we had to follow the Indian paths which, like all such, were very narrow. The traveller, especially if he is mounted, as we were, must expect to be torn by the thorns along these paths and I had my fair share of lacerations. It was too hot to wear long leather boots as a protection against thorns and we were clad in light cotton trousers.

One night when we camped not far from the frontier town of Dzontchel, I noticed that one place on my leg which had been pierced by a thorn was very red and in its centre was a spot of purple. I showed this to my Indian head man, a very experienced woodsman, and, after looking at the leg and pinching it, he said: 'It looks very much as if you had been poisoned, Don Eduardo.'

He took another Indian and went on the back track to investigate. I would have accompanied him, but the leg had become so painful and the inflammation was increasing at such a rate that I could not

go. So I remained in camp, putting cold poultices on the wound. Two hours later, the men returned, looking very grave, and the head man made his report.

He said they had found traces that were extremely serious. Many Indians had passed by the path we had followed and along the trail they found a number of traps, some of which had sprung probably by the forelegs of our horses. The traps were arranged in much the same manner as American boys employ in setting spring snares for rabbits. Saplings were bent down and secured with vines, but on these, instead of rabbit nooses, thorns had been placed in such a way that they would become embedded in the flesh of the passer-by who inadvertently broke the vine and released the sapling. On the point of each thorn a dead fox had been impaled so that the decayed blood would inoculate the wound with poison. I had run into one of these traps, they said, and the poison was already at work.

There was nothing for us to do but hurry back to a land of doctors and hospitals, and so we hastened, but we took great pains not to run into any more traps. When we reached the frontier town, we found it to be a shambles. The bodies of men, women, and children lay about the streets, some of them mutilated. We learned from survivors the story of the massacre and also the explanation of the poisoned traps in the jungle.

Far in the interior of Yucatan, beyond the range of law and order, chicle is obtained for the American chewing-gum industry. Many criminals and des-

perate men who have made the settlements too hot for them work as *chicleros* in these remote regions, safe there from the attentions of the police. We were told that a band of these desperadoes, happening on a Maya village while the men were all away cutting cedar and logwood in the forest, had molested the Indian women. When the men returned from work and learned the facts, they did not take time to weigh the merits of one lot of white men against those of another. They merely went to the nearest white town, which happened to be Dzonotchel, and wreaked vengeance on all who came in their path. Then, knowing that troops would be sent after them, they fled, but they arranged poisoned traps along the jungle paths to catch the soldiers.

Fortunately, my cotton trousers were unusually thick and a light rain had fallen an hour or two before I reached the trap. This rain probably had washed some of the fox blood off the polished thorns and so diluted the poison that it had lost its immediately venomous effect. By forced marches I was able to reach Merida while my leg was still in condition for travelling on horseback. I went at once to the home of my friend and physician, Dr. Tappan, a member of a distinguished Philadelphia family and a Harvard graduate, who had become president of the Medical College of Yucatan.

He told me frankly that my leg was in a very serious condition, that the poison had begun to work, and that it was only because I had kept my body clean that we could hope to avoid 'most serious consequences.' I grimly construed 'consequences' to

mean amputation. He cut away the decayed tissue, cleaning the cords and applying caustic. I suffered weeks of agony and months of pain, but finally was able to use my leg, although it still bothers me to some extent. For five years afterward, about that same month, black ulcers came out on the limb at the spot where I was poisoned, and I had to have these cauterized.

While I was searching the bottom of the Sacred Well at Chichen Itzá for relics of the past ages, the dredge one day brought up a curious figure, half-human, half-jaguar, weighing about four hundred pounds. As it came from the water I noticed the strange carvings upon it and, desiring to give it closer examination, ordered my men to carry it to the plantation house where I had my museum. As they bore the image away, I heard one of the Indians, a man who had but recently entered my employ, say to his companions:

‘Don Eduardo had better take care. He is taking away one of the servants of the Rain God.’

Some three years later, my plantation house was looted and burned by revolutionists, and this figure, which was of limestone, was calcined by the heat. Desiring to move it to the corridor of the plantation house, I took it by the base and had three or four of my Indians take the head. When we lifted it, the statue, being calcined, broke in two and the base fell on my toes, crushing the bones. It was the same leg that I had had poisoned in the jungle. The Indian who had uttered the warning at the Sacred Well was



LARGE STONE FIGURE BROUGHT UP FROM THE
SACRED WELL



EARTHEN VESSELS FROM THE SACRED WELL

in the group, and as I bound up my foot I heard him say:

‘Now you see the Serpent God was angry and he took this means of revenging himself on Don Eduardo.’

I looked up at the brown Cassandra and laughed.

‘*Hach bey ani*’ — ‘It can be so,’ I said.

CHAPTER X

WITH CHISELS OF NEPHRITE

ONE day on the outskirts of Merida I watched a group of Indian boys hunting dragon-flies with slings and tiny darts. A young hunter took a new rubber band to make a sling and divided it, but not with the sharp machete that lay close at hand. He sought out a sharp-edged stone and, placing the band on a flat rock, neatly severed it with the sharp-edged one. 'The voice of the child is the echo of the race.' In one of the oldest chronicles of the land we read: 'In very ancient times, when our fathers lived in the caves and under the forest trees, they used sharp-edged stones to cut and divide things.'

The massive temples and palaces of the ruined cities of Yucatan were built by a people to whom steel was unknown and in whose economy metal played but little part. No deposits of any useful metal were known to exist in the land and the quantity obtainable by barter was insignificant. Nephrite, used in their quarrying and building, the Mayas obtained from the highlands of Mexico, whence also came the obsidian or volcanic stone from which they made keen knives or sharp lance-heads. Even copper was extremely rare.

In 1894, Dr. William Henry Holmes, chief of the Bureau of Ethnology, National Museum, Washington, D.C., and I conducted a search for the long-sought quarries whence came the huge blocks of

trachyte used by the pre-Columbian architects and builders of Mitla in Mexico, 'Mictlan, the City of the Buried Zapotec Kings.' Dr. Holmes undertook to explore the lowlands, searching for the work sites, stone heaps, and the rejectage, while I took the highlands.

With two chocolate-colored Zapotec Indians and a couple of mules laden with blankets, provisions, and implements, I started on the quest. At times on ridges above the cloud-mists, sleeping in the huts of Indian goatherds and charcoal-burners, at times on the forest-covered slopes, taking my rest wrapped in my blanket at the foot of great trees, I traversed the region until I found that which I sought, the ancient quarries.

Stone blocks of all sizes and shapes were strewn about. Some were channelled, half-cut from the face of the stone ledge by heavy hammer stones as tools, while others were detached entirely. Some were rough-hewn and raised on stone blocks as if ready for the skids, and one huge block, nearly finished, had been struck by a lightning bolt and shattered into fragments. In places close by the blocks, and as if laid down yesterday, were the tools with which they were cut and fashioned, hammer stones of quartzite, pecking stones of flint, and chisels of nephrite.

From where I stood on the rim of the quarry looking downward through the mists and over the tree-tops, I could see where the ancient causeway, dug out of the soil and hewn out of bedrock, once existed, its course still sharply outlined by the changed forest growth. Down this causeway in the past ages mono-

lithic blocks, held back or hauled by well-manned ropes, moved on wooden rollers down the sharp incline until they reached and rested on the level lowlands.

Dr. Holmes had equal success in his endeavors and, coördinating the results, we helped change what had been the merest information into a knowledge of actual facts.

Years later, I found, almost within the shadows of the ancient Maya capital and sacred city, Chichen Itzá, quarries, not deep, but large and wide. I found worked veins and pockets of the fine white earth — *sahcab* — used by the ancient masons in tempering their lime mortar; also the sites of their kilns where the limestone chips and rejects were calcined into lime for that mortar. Scattered amid these surroundings I found hammer stones of calcite, pecking stones of flint, and smoothing stones used to produce the smooth, hard finish on wall and platform surfaces. I discovered also chisels of hard, polished nephrite. In the Sacred Well of Chichen Itzá, I found polished and finely carved jadeite; also objects in copper and gold, both cast and hammered, worked and carved with artistry.

There is an idea creeping around the world, coming out into the open unexpectedly at all sorts of times and gatherings, that in the early days, probably when the world was young, some technician discovered the art of tempering copper and in the passing of the ages that art became either misplaced or lost. I would not say that this is not so. Science has learned by the events of recent years to be very

open-minded. But no living man has yet been found who can truthfully say that he possesses a single ancient artifact of tempered copper and no dead man has left authentic record of a place where such an object, if one does exist, can be found.

Even though these ancient craftsmen of America had no tools of tempered metal with which to cut and carve the stone masses, columns, lintels, and building blocks, it did not matter much. They did not really need them. They might have done the work more quickly, but they would not have done it better, and in those days the time count of either craftsman or laborer was of even less value to the overlord than is that of the greenest apprentice to the modern captain of industry.

I have taken a chisel of nephrite found by me in one of these ancient workings and with it have cut my name in letters a quarter of an inch deep on the surface of a limestone block. My name is a long one and the task was a hard one, but when I had finished, the cutting edge of the nephrite tool was practically intact and even the polish remained.

If the ancient craftsmen had no tools of tempered metal with which to produce their handiwork, neither had the pre-Columbian builders or architects of America any mysterious machinery of the 'lost-art' kind to aid them in their tasks. They had no 'Apron of Osiris' to down the laws of gravity and lift the huge stone blocks that went into the building of the temples. Neither did they need them.

'Given human power, practically unlimited and unpaid for, powerful machinery is needless.' This

statement has almost the force of a law. The overlords and priests of the Mayas had subject to their wills slave labor and religious forces not to be measured by the rules of today. Given the task of hauling a big stone block on rollers up an inclined plane to the platform of a temple, the performance of the job was merely a question of men and ropes. If one rope manned with ten men was not sufficient, then ten ropes with a hundred men would be.

While some of the work done in stone, notably barrel-shaped columns and deflected stone faces, shows that some workmen, then as now, trusted to their eyes rather than to their gauges, in the main and by its merit the product shows us that the Maya sculptor of those days and the builders as well were perfectly capable of doing what we of today would call 'high-class work.' They were quite equal to the task of combining highly conventionalized motives and ornamental designs into an æsthetic whole.

Some of the structures still standing, discovered by me in the ruined city of Chacmultun — The City on the Red Stone Hill — and certain wall surfaces which I uncovered at Chichen Itzá, have paintings upon them as clear-toned as if the pigment had been applied but yesterday. The principal colors used by these ancient artists were white, red and brown, blue green, yellow and black.

The white was generally made up from a finely divided lime mortar mixed with the diluted juice of a plant called *chichebe* by the natives, and was given a fine, hard finish by a rubbing with a *ka*, or smoothing stone. This basic white of the wall surfaces was often

given a pinkish or greenish tint when serving as a background for mural paintings.

Brown and red are the colors most in evidence, for they serve as a general background for carvings in relief or when earth surface is depicted. This is logical, for the color of the earth in Yucatan, called *kancab* by the natives, is a reddish brown. Dark brown is the color symbol for men; a lighter brown for women. The brown pigment used for the wide spaces on the carved stone surfaces and the common earthen vessels is made from burned *kancab*, ground into fine powder with a stone mill and applied first with a sop made of fibre, then rubbed in with a fine fibre mat.

The fine red and brown pigments, those used in the mural paintings and the figures outlined on the finer earthen vessels, are made from the red splinters and chips of the heartwood and the tinted sap of the tree called *chacte* by the Mayas. Different shades and effects are produced when this *chacte* pigment is mixed with the sap and the latex of the *habeen* and *chucum* tree. The sap and latex of the *chucum* were also used to change the tone and harden the white lime surfaces, the hard finish on wall surface and platform floors.

The blue pigments are obtained from several closely allied plants called *anil*. The blue is applied with water in which is placed a portion of certain saps according to the effects desired and also by using the white of a jungle pheasant's egg as a carrier for the pigment. These blues when rightly prepared have certain remarkable qualities and among these that

of great durability, a quality often lacking in blue pigments.

Blue is the color symbol for virtue, for chastity, for religion, and, by extension, heaven. Temple vessels and votive objects are often overlaid with blue pigments. The symbolical color of the *Kukil Can* — the Sacred Serpent — is a blue with a shade of green, 'the *quetzal* blue,' I call it. Green was the color symbol of fertility and, by extension, of life.

Yellow was produced from the fruit of the *achiote* — annoto — and from the boiled and strained chips of the fustics. It was the color symbol for anger, for the passions, for defiance and war and, by extension, for death. When corpses are depicted, their color is always a pallid yellow. Gold was also depicted as yellow, but this was because it had the color of the sun. In fact, the word in Maya meaning gold pieces is *X'Takin* — excrement of the sun — which gives their idea of the origin of the metal. In most of the finer paintings the whites of the pheasants' eggs were used as a carrier for the pigments when brushes of fine hair or the plumes of certain birds were used and there are good reasons for believing that the whites of eggs and certain albuminous saps were used to moisten the pencil points or crayons.

Black pigments were made of various classes. The finest was made from the carbonized resins, the copal incense, and the resin of the *chacah* tree, ground into fine powder.⁷¹

The Maya artist, particularly in his monochromes and outline drawings, often applied his colors with a pencil, or perhaps we should call it a crayon, made of

the heartwood of the *chacte* tree. This hard point of tinted wood was in itself a kind of crayon and, when dipped into the deeply colored sap and latex of the same *chacte*, became a perfect instrument for the artist to use.

On one of the chamber walls in the Temple of the Jaguars at Chichen Itzá is a line drawing of a crouching person apparently engaged in offering sacrifice. The figure, though passive, is instinct with life. A guest visiting me, a noted artist, was greatly interested in the technical skill displayed by the ancient artist who, with a single continuous stroke of his pencil, completed the outline.

It was with a tool of this kind that the Maya artist did most of his outlined drawings. It is also probable that the 'crayons' mentioned by Cortez as having been in use by the Mexican artists when he conquered the Mexican Empire were of this nature. It is even conceivable that the famous line drawings of Aridicis the Carthaginian, the monochromes and line drawings of Egypt and Greece, were executed with similar tools. But this is mere conjecture, not knowledge.

PART III
CITY OF THE SACRED WELL

PART III
CITY OF THE SACRED WELL



CHAPTER I
THE ANCIENT MAYA CAPITAL

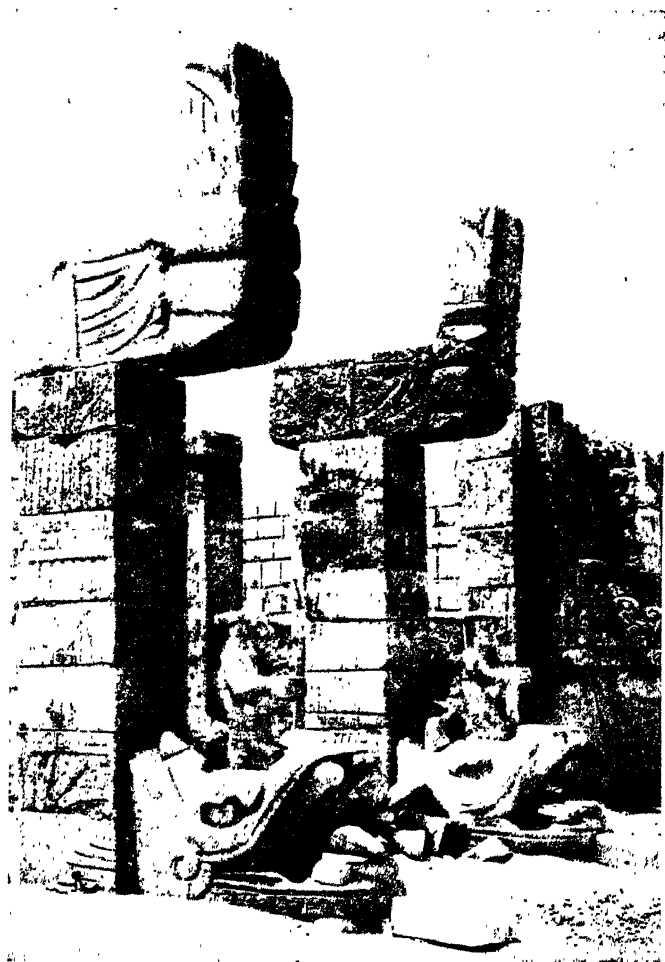
AFTER I had visited and studied many of the ruined cities of Yucatan I concluded that Chichen Itzá was to be the scene of my life-work. In pursuance of this plan I later purchased a great abandoned plantation including within its boundaries the ancient capital and sacred city of the Mayas, and this was my home for many years. When I decided finally to explore the unknown depths of the sacred sacrificial well of Chichen Itzá, I resigned my office as consul to devote myself entirely to archæological pursuits. With these various matters, however, I shall deal in another place.

The City of the Sacred Well has changed greatly in appearance since I first visited it nearly half a century ago. In no group of Central American ruins has so much systematic work been carried on, thanks to the efforts of the Carnegie Institution. The sites of many of the important buildings have been cleared off and the work of restoration of edifices which have suffered from the ravages of time and Nature has been advanced. For example, the Temple of the

Warriors, which was nothing more than a mound when I first went to Chichen Itzá, is now restored to something like its former grandeur. The place is also easy of access today. A good railroad carries the visitor from Merida one hundred and eighteen miles into the interior to the frontier pueblo of Dzitas, which is but fifteen miles from Chichen Itzá. Thence he may go by autobus to the ancient city.

It was on a clear day in April that I started on my first journey to this famous city of antiquity. Part of my way was by train, one of those meandering narrow-gauge roads where the engineer keeps one eye on his water-gauge and the other on the track ahead, with a fagot of wood always ready to heave at a cow or mule which chooses to dispute the right of way. I recall that the engineer was a cross-eyed Jamaica Negro and that he stuttered. At that time the railhead was Yzamal, a large interior city of Yucatan, claimed by some to be the oldest living city in America. From Yzamal to Dzitas, the next town, the trip was by *volan*. From Dzitas to Chichen Itzá there was a mere bridle path, so I changed to horse and pack-mule.

As the hours passed and the sun rose higher, I left the arid belt where the sisal plant delights to grow and entered a region of deeper soil, greener foliage, and greater forest trees. Despite the dry season, some of the climbing convolvuli were covered with beautiful trumpet-like flowers and the thorny-barked trees were glistening with the sheen of newly opened leaves. On the branches of some old forest giants masses of gray Spanish moss hung raggedly pendent



COLUMNS IN THE TEMPLE OF THE WARRIORS, CHICHEN ITZÁ

and amid them were the long black nests of the tropical oriole.

The gradual ascent and winding of the trail between the boulders and the big trees seemed so like familiar forest rambles at home that it came over me almost with a shock to realize that the boulders I passed by so carelessly had cut surfaces and were once carved columns and sculptured pillars. Then, just as I began to understand that the level, forest-covered surface beneath my feet was a terrace made by ancient man, I peered upward to a great stone mass that pierced the sky, and all else was forgotten. A pyramid with terraced sides, panelled walls of cut limestone, and broad stairways leading upward, was crowned by a temple. Other buildings, high mounds, and broken terraces, were buried in the forest and only the dark green knobs on the horizon told where they stood.

Pen cannot describe or brush portray the strange feelings produced by the beating of the tropic sun against the ash-colored walls of those venerable structures. Old and cold, furrowed by time, and haggard, imposing, and impassive, they rear their rugged masses above the surrounding level and are beyond description.

The meaning of the name Chichen Itzá is pretty well known. *Chi* is the Maya name for mouth. *Chen* means well, and refers to the two great natural wells around which the city is built. About the word *Itzá* enough has been written to fill a volume, but I will only say that I believe the word is made up of the native word *Ah*, meaning masculinity, and *Tza*,

the rattler. The Sacred Serpent of these ancient peoples was a rattlesnake with plumes. The Mayas were fond of elision and euphonic expression and this would lead them to say *H'tzá* or *Itzá* — They of the Serpent: Thus Chichen Itzá, literally interpreted, would mean 'Mouth of the Well of the Serpent People.'

The ruined group of Chichen Itzá covers a space of fully three square miles. Over all this territory are scattered carved and square stones in countless thousands and fallen columns by the hundreds; while the formless remains and outlined walls of huge structures fallen into decay are seen on every side. Seven massive structures of carved stone and adamantine mortar still tower erect and almost habitable. Their façades, though gray and haggard with age and seamed by time, sustain the claim that Chichen Itzá is one of the world's greatest monuments of antiquity.

The heart of most of the cities of antiquity was a castle or temple. In this great American monument the heart was a Maya temple and a Spanish castle, both in one. A terrace as broad and level as a plain is raised ten feet or more above the surrounding surface, built up with rubble and finished with a lime cement—hard, white, and durable. On this man-made plain was built, among other structures, a pyramid of nine terraces, each faced with panelled, carefully finished stonework. On each of the four inclined faces of this pyramid a stairway was built, 111 feet long, and 28.7 feet wide, with 104 steps rising from the base to the crowning platform.

Each of the four angles of the pyramid is formed by the undulating body of a great stone serpent. Descending from the crowning platform, each undulation of the body marks a terrace plane; while on each side of the northern stairway a serpent head, with wide-open jaws, carved from a single mass of limestone, rests on the floor of the bottom level. A strong man cannot lift the smallest stone that goes into the making of these huge serpents.

Standing on the highest platform is the remarkable Castle Temple. This temple is not large, measured by the standards of the present day, or even by that of those ancient builders. Like the heart of a human body, it was not large, but important. It is only forty-three feet by twenty-nine, with a narrow level space around it on the platform's outer edge barely wide enough for two to walk abreast in safety. On the north, facing a few degrees east of the north, is the Ceremonial Stairway with its two great serpent heads leading up the pyramid to the entrance of the sanctuary.

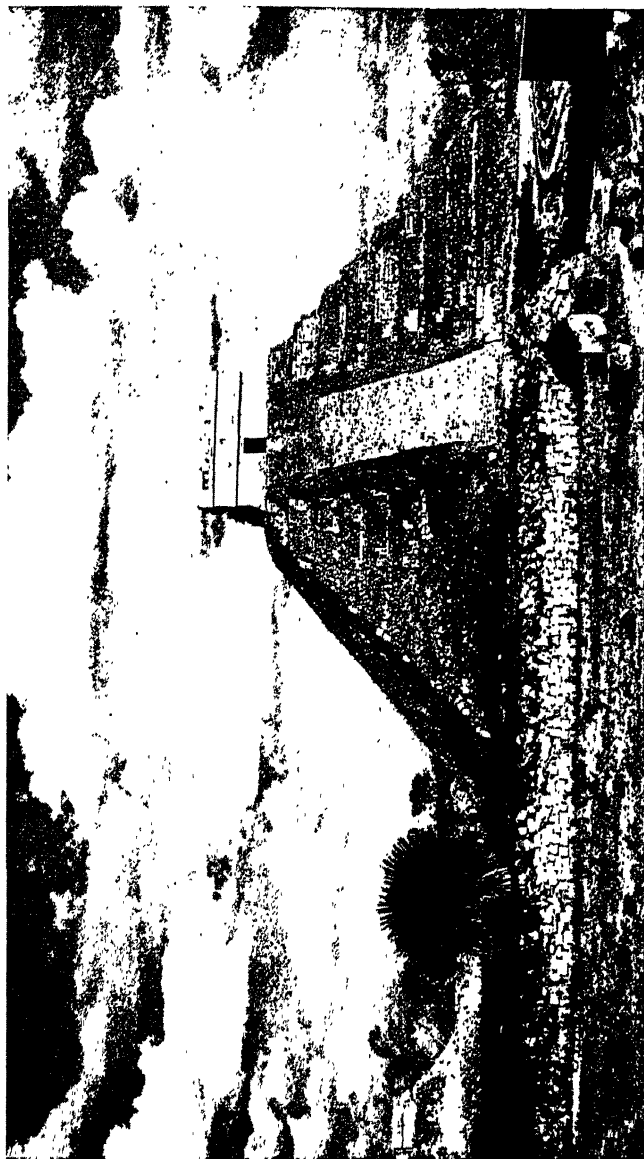
Thick stone pillars, fashioned always in the conventionalized serpent form, sustain the carved and paneled façade above the entrance to the outer corridor and the inner chamber, the sanctuary of the temple. In the semi-gloom of this sanctuary are two square pillars of stone, each supporting massive twin beams of thick *sapote* wood richly carved. These in their turn help to support the strange triple-vaulted roof of the chamber. *Sapote* wood, like the East Indian teak, is almost as durable as stone.

Wooden beams, stone pillars, and entrance posts

are all carved in low relief. Symbols and human figures, some in mask and bearded, and all clothed in ornate regalia, with strange weapons and the flowing plumes of the *quetzal*, cover their surfaces. The symbol of the feathered serpent — the body of the rattlesnake, covered with the plumage of the *quetzal* bird — was to this old civilization what the Cross was to the Christian and the Crescent to the Saracen. Under this symbol the culture hero *Kukil Can* — Feathered Serpent — of Yucatan, Quetzalcoatl of the Aztecs and earlier people, was first revered, then deified and worshipped.

Most of the carvings on the stone surface were painted, but the wooden lintels, carved or plain, were apparently dull-finished in their own natural color, a rich red brown. On the south, east, and west a single high-vaulted but narrow chamber was formed, with *sapote* lintels and carved doorways facing each of the stairways. Large serpent masks, each flanked by sunken panelled squares, are the only ornaments of these three façades. Except on the western façade, they are placed directly over the entrance. This was not done at random, neither did the conformation of the structure make this lack of symmetry a necessary fault. It is true that the ancient builders of the East were wont to leave one stone missing or one carving misplaced in an otherwise perfect work, because only the Supreme One should produce perfection.

On the roof are ornaments of carved stone cut in curious angles and placed like battlements. These probably served as shelters to the fighting men and



TEMPLE OF KUKIL CAN. CHICHEN ITZÁ

protection to the priestly watchers of the stars and planets as they traced the celestial orbits and read the omens thus revealed.

I stood upon the roof of this temple one morning just as the first rays of the sun reddened the distant horizon. The morning stillness was profound. The noises of the night had ceased and those of the day were not yet begun. All the sky above and the earth below seemed to be breathlessly waiting for something. Then the great round sun came up, flaming splendidly, and instantly the whole world sang and hummed. The birds in the trees and the insects on the ground sang a grand *Te Deum*. Nature herself taught primal man to be a sun-worshipper and man in his heart of hearts still follows the ancient teachings.

From the northern edge of the level terrace at the base of the temple pyramid a raised causeway, twenty-five feet wide and built of crushed stone, extends northward three hundred yards or more to the Sacred Well. Several hundred feet to the west of the Castle Temple, and on the same terrace with it, rest two great parallel moles of solid masonry, each two hundred and seventy-five feet long, thirty-four feet wide, and twenty-five feet high. Between these moles is the Ceremonial Court. This level cemented space was probably the theatre for the performance of certain rites and games of a ceremonial character like the Aztec game dedicated to Tlaloc. This belief is borne out by the fact that, at a distance of six feet from the level upper surface of the mole, two great rings of stone were firmly fixed by means of tenons into the perpendicular wall surface directly

opposite each other. One of these rings had either fallen out of its place by its own weight, or more probably was dug out by native honey-seekers, and now lies prostrate, but whole, on the ground beneath. The other still stands out boldly from the sheer wall surface and the entwined serpents carved on its annular faces are yet clearly visible.

To the north and south of these great moles are the half-ruined remains of two small temple structures. Shrine-like, they seem to guard the entrance to the Ceremonial Court; but they themselves, their carved walls and columns time-worn and beaten, are fully exposed to the gnawing of the elements.

On the southern end of the eastern mole rests an edifice, like a casket holding jewels, that in time will become the object of pilgrimages from afar. It is known as the Temple of the Tigers from the frieze of nobly designed, artistically executed jaguars that, alternating with shields, ornaments the southern face. Of course, the term 'tiger' is a misnomer as applied to the great *Felidæ* in America; the jaguar and not the tiger is meant. The word *tigre* was probably first given carelessly to the jaguar by the Spanish adventurers and the name was thus wrongly perpetuated in America.

The entire front of the Temple of the Tigers has disappeared. Fractured and wedged apart by the growing tree-roots at the apex of the roof, the weight of the richly carved façade toppled it over into the space beneath, where it still lies in a formless mass. Two large serpent columns, with open jaws and bulbous teeth, are still in place. These only helped

to sustain the fallen façade, and probably served as the massive fulcrum that tossed the mass of stone and lime free from the platform in front down on the level floor of the Ceremonial Court. These, like all the other serpent columns, are carved in the conventionalized crotalid shape and covered with the conventional quetzal plumes.

The square and pilasters of the outer entrance to the inner chamber are entirely covered with sculptures in low relief. Like those upon the pilasters and columns of the Castle Temple, the principal motive on each panel is a human figure elaborately costumed and brilliantly painted.

The wall surfaces of both chambers bear traces of having been once covered with mural paintings. Those on the walls of the outer chamber have become entirely obliterated by the erosive action of the elements. Those on the walls of the inner chamber are in part obliterated by the excreta of bats, and still more by the vandal hand of man. But enough yet remains to make this little chamber the repository of the best preserved examples of the mural painting of the ancient Maya race at present known.

The most interesting pictures represent a battle scene. The attacking party, with *hul chés*, spears, and shields, are seemingly assaulting a city or fortress. Above the battle-field can be seen tier upon tier of houses, and amid them are women in agonized postures, looking down upon the fighting warriors. At one side is the symbolical figure of Kukil-Can, with lightning-like yellow flames issuing from his mouth, the symbol of defiance and also of war.

Other scenes and figures are depicted, but the battle scene is the clearest of them all. The figures are drawn in a confident, easy style, vigorous and true.

Belonging to this same temple, but on a lower level and built against the eastern wall, is a chamber twenty-two feet long by ten feet wide and fifteen feet high. The front of this chamber is also destroyed and in practically the same way as that of the upper chamber. A portion of the end walls and a large part of the rear still remain upright and the superb wall sculptures upon their surface are fortunately still left for study and comparison.

Artistically composed and boldly executed, these groups show the skill and spirit of these ancient artists. The carvings clearly represent the performance of some religious rite or ceremonial dance. Entwined about the series of masked and conventional figures we see the serpent symbol, the symbol of the sun and apparently that of rain and water. These figures were originally painted in the conventional colors upon a deep red background. Portions of the two richly carved pillars that once helped to sustain the fallen front, and between them a rigidly conventionalized 'tiger,' seemingly a kind of ceremonial seat, complete all that is now visible of this chamber. Half-ruined as it is, the Temple of the Tigers is a treasure and a boon to students of the Maya civilization.

South of the Temple of the Tigers lies the beautiful structure known to the natives as the Chichen Chob, or prison, probably the most perfect existing unit of the ancient Maya architecture. The pyramid sup-

porting it and the stairway leading upward are almost intact, the angles and faces of the edifice itself almost perfect. Within the chambers some of the wooden cross-beams are still in place, the mural paintings on the hard-finished walls are evident, although dimmed with age, and the long band of well-carved hieroglyphics that extends entirely across the wall opposite the door is as perfect and delicately clear as if carved but yesterday.

To the southeast lies the House of the Snails, so-called, a strange structure, unique in plan and outline. This edifice rises like a turret, forty feet high and of equal diameter, from near the centre of a terrace twenty feet high, two hundred and twenty feet long and one hundred and fifty feet wide. Its purpose is at present unknown; but from its construction, its annular chambers, its winding stairway, and the position of its outlooks, I believe it to have been an observatory, an edifice devoted to the study of the stars. It is known that the ancient American calendar system was so accurately worked out that Alexander von Humboldt was for a time incredulous of its native origin.

The learned ones, the wise men among these people, were astronomers, not star-gazers, and there are some among the Mayas today who have a surprising knowledge of the celestial geography, as well as of curious properties of certain roots and herbs on the earth beneath. The present conical form of this edifice, the shape of its chambers, and above all the peculiar inner stairway winding around a solid centre, have caused the natives to call it, in their vernacular,

'The House of the Snail,' and this name in its Spanish form clings to it now. As the *Caracol* — Snail — it is best known to the people of the region, and under this name it is shown to the curious visitors from afar.

Another wonderful building is that called 'The House of the Nuns.' The façades of this great mass of stone and lime are wonderful examples of carved stonework and ancient American symbolism. I doubt if, taken as a whole, their equal exists. The photographic views show this, but only imperfectly. The true beauty of the carvings and the perfect proportions of the structure can never be fitly shown until the débris that now hides the base and destroys the true symmetry of the edifice is removed.

Two small one-storied edifices, in the nature of detached wings, are on the right and left of the building proper. One, known as *La Iglesia* — Church — is still quite perfect and the symbolical figures encrusted on its richly worked façade have long been objects of study to the student and of curiosity to the profane. The other is a still smaller structure of ordinary design and apparently of no special interest.

A wide, steep stairway, with the very narrow steps and risers common to the work of sandal-wearing people, leads up to the important second story. This portion of the structure sets back from the face of the lower one and leaves an open, level space of some thirty feet wide, broken in front halfway by the stairway leading up to the third story. The northern face of this upper story has two true entrances into perfect chambers and four large recesses in the front

walls that are either blind doorways or were once true entrances into chambers existing in the original structure, but later filled up to make a solid foundation for a third story directly above. When this was done, the doorways remained as simple niches and over these was built the stairway to the newer structure above. This is my hypothesis, subject to modifications that future investigations may make necessary.

The stone lintels over every entrance, existing or blind, are covered with handsome, still legible glyphs. Legible, indeed, but as unreadable as a sealed book. Undeciphered and mysterious, they are the delight and the despair of those who seek to solve the problems that they hold. Meanwhile, like the Sphinx in the East, the gray, old human faces carved high on the massive walls gaze down unchangingly, unmindful of modern man and his futile guesses.

The recessed chambers of this great building appear to the observer to have been repositories. Perhaps within these niches were stored the rolls of parchment, the folded books of deerskin and agave paper, the plans and records, and all the written lore of this city of the Maya wise men, the *Itzáes*. Who knows but their contents formed part of that funereal pyre of ancient Maya literature made by the Spanish zealot, Bishop de Landa? De Landa, seeing on these old rolls of deerskin and volumes of maguey paper signs that he could not read and symbols that he could not understand, concluded that they were cabalistic signs of a diabolical nature and caused them together with many other objects of inestimable

value to science, to be destroyed by fire on the public square in the Pueblo de Mani.

At that time, the old chroniclers tell us, there were destroyed five thousand idols of distinct forms and sizes, thirteen altar stones, twenty-two stones carved and of small sizes, twenty-seven rolls of ancient hieroglyphics on deerskin, one hundred and ninety-seven vases of all sizes and patterns, and many other unrecorded objects. An ancient Spanish chronicler states naïvely that the natives who witnessed the destruction by fire were much afflicted and 'made a great outcry of woe.' Is it to be wondered at? They saw not only the sacred things calcining in the fervent heat, but also the written lore, the accumulated knowledge of their race, going up in smoke and red cinders.

Around the corners and on the broken portions of the smooth, hard-finished recesses are traces of broad red, blue, and green bands forming panelled outlines for the figures within. On the ceiling are still fragmentary outlines of houses, trees, canoes, city walls, and nondescript animals. On the inner walls of the eastern end chamber can be clearly seen the impress of the 'red hands,' another of the unsolved problems. The third story is small and seems to be unfinished, although its state of ruin prevents the last word being said until careful excavation and investigation have taken place.

The last and most important of the seven structures yet standing is the so-called 'House of the Dark Writings.' The structure is a huge one-story edifice. Great forest trees grow over its flat roof, and were it

not for its vertical wall faces of well-carved stone, one could easily believe that he was treading the primeval forest floor. The name, *Akab Tzib* — House of the Dark Writing — was given to it by the natives, because, in the gloom of the inner chamber, can be seen a lintel of stone, covered with glyphs and having on its under surface a seated figure in the act, apparently, of offering up some kind of burnt sacrifice.

CHAPTER II

A CASTLE OF SPAIN

RATHER more is known of the early history of this ancient group of Chichen Itzá than of any other centre of the Maya civilization. The earliest information concerning the City of the Sacred Well is found in the book of Chilam Balam of Mani, one of several documents written in the Maya language, but in Spanish characters, after the Conquest. In this manuscript it is related that Chichen Itzá, like other ancient Maya cities, was abandoned by its people and later reoccupied. Various reasons are assigned for these strange migrations, but the best seems to be the fact that, in the method of agriculture then employed, the land about the great centres soon became exhausted and it was found necessary to seek new fields elsewhere.

There is a legend of Chichen Itzá that has seemingly more of the material of true history in its making than legends are usually thought to have. At all events, it is genuinely romantic and worth repeating. Canek, the impetuous young ruler of Chichen Itzá, was deeply in love with a beautiful maiden, daughter of the ruler of a distant province. In the midst of his amorous dreaming, as he sat in his chamber one day, a dust-covered runner came up to the Palace entrance and rattled the sounding-shells before the curtains, demanding instant entrance. The news he brought drove the young ruler to desperation. The *Batab* of a

neighboring province, and one far more powerful than he of Chichen Itzá, had married the maiden Canek meant to take to wife. For a while no raging jaguar robbed of its mate was more furious than young Canek; then of a sudden he grew quiet, cool, and seemingly calm. So his warriors remembered to have seen him when they fought an old-time enemy, killed his fighting men and defaced his temple; and they patiently waited.

The night came and with it a brooding norther. Darkness as black as the hate in the heart of Canek lay around the silent ranks of the warriors. The lightning flashes, as sharp and hot as the anger that flamed in Canek's breast, played over the glinting points of crystal on the moving forest of lances as they neared the enemy's city. The ever-burning flames on the top of the distant temple gleamed redly and black smoke went heavenward in increasing volume as the priests burnt great baskets of copal in honor of their lord's marriage.

Canek and his silent warriors came swiftly onward, melting into the darkness of the shadows, hiding from the lightning flash, leaping ahead like deer when chance offered. Revelry had taken the city with all that was in it and held it fast. Even the watchers were drunkenly grumbling over the fate that kept them from the carousals. As the black and silent shadows reached them swiftly, they grew quiet in the sleep of death.

And the deer-eyed woman — a wife, yet still a maiden — was she happy? Who knows? It may be that her eyes were not pain-shadowed; that it was but

the dim light of the wild wax tapers in the narrow vaulted chamber. And it may be that that which glistened on her drooping lashes was but the flashing of stray light beams from between the entrance curtains. Who knows?

Merry were the wedding guests and drunken. More than merry was the bridegroom, who drank the deepest of them all. His brain was sodden, his limbs rebellious, but his tongue, though thick and clumsy, still responded to his call. Sodden brain and clumsy tongue worked together as he spoke:

‘As for the Lord of Chichen Itzá — poor lean dog — let him take his pleasure howling at the moon to-night! Before I seek my wife’s caresses in her many-curtained chamber, I must hear a lively song. *Ehen! Holcanes! Tupiles!* Lift up your voices and shout the battle-song.’

At the *holcanes*’ call the *tupiles* started the great war-song of the Mayas — ‘*Conex! Conex Paleche!*’ — ‘Come on! Come on, ye warriors!’ The voices that began it were drunken and quavering; the voices that joined in it and ended it were strong, full, and shrilly menacing. Abruptly the drunken voices ceased and some ended with a groan.

The deer-eyed woman, alone in her curtained chamber, heard the voices and the singing and then the strangeness of the tumult drove her to the carved stone entrance. Before she reached it, the shells were rattled and the curtains parted swiftly. ‘Star of the night! Star of my life!’ said Canek.

‘Canek!’ cried the maiden, with startled eyes, but starlit.

Never again did Chichen Itzá know its Lord Canek nor any of his band of fighting men. In the night they vanished, the Lord Canek and the soft-eyed maiden, the stolen bride of the drunken one.

Time passed. The lord who gained a bride but could not keep her lived his life, died, and was forgotten. The memory of Lord Canek lived on in song and story and became a part of the legends of Chichen Itzá.

One day, long after, a hunting band from Chichen Itzá went toward the south some days' journey. Young men they were and full of rashness, so they kept on the chase until the land grew hilly and higher and at last rose into the very clouds. Wonderingly, they turned homeward, journeying over a strange country, until they reached a lake of shining water and in the lake an island city, with houses and temples and the carved fronts of many buildings like their own Chichen Itzá. From this island city warriors came and met them and led them to the waiting ruler and his aged wise men.

'Who are you, presumptuous ones, that you dare to come unbidden to our land and unwanted to our city?' asked the *Batab* in stern menace.

The young man spoke bravely. 'We came from our home, Chichen Itzá, and have wandered here unbidden because in the chasing of the deer we went farther than we knew; and, finding pathways right before us, we kept on, thinking to find old friends or make new ones.'

The ruler turned and took counsel with his wise men, then said to the hunters: 'If your tale be true,

that you are of Chichen Itzá, and not of another province, you will indeed find here old friends and new as well. This is the city of Tayasal, whose lord is Canek, who once was lord of your own Chichen Itzá, the City of the Sacred Well.'

So runs the legend. The substance is as told by the good old, but very dry, chronicler, Padre Cogolludo. I confess to having taken his skeleton and to putting a little flesh on it here and there, just to round out the form, and adding a little brown and red, just to give it color and pictorial effect; that is all.

Chichen Itzá has a pre-history and also a history in which the old and new are at times curiously intermingled. When the site of this ancient capital of the Mayas first became a populated centre has not yet been revealed to living man, and he who says it has is either self-deceived or is deceiving others. Mis-directed religious zeal and the effacing hand of time have taken from us, perhaps forever, the satisfaction of reading the written records of these facts. And yet, facts dug from the earth, rescued from buried places, gleaned from wall-paintings, or read from ancient inscriptions carved on stone, are constantly yielding their secrets and suggestions. Any day, at any moment, data may be discovered that, under the siftings of expert archæologists, will give us the light that we seek.

With the light that we now have we can see no evidence that any other people than those merging into the race we call Maya ever inhabited the region about Chichen Itzá. If those people called by the Spaniards Caribs ever wandered so far from their

island homes, the floor strata or the caves and dry sink-holes yield no evidence of the fact. Traditions and early chronicles alike bear witness to the fact that at least two important migrations entered Yucatan in the earliest times. One, called the *Noh-nial* — the Great Migration — came from the south and west, while the other, the *Chan-nial* — the Lesser Migration — seems to have come from the south and east. Some students have sought to prove that the Lesser Migration is only a Sun Myth. In my opinion they have failed to prove their point.

The view now commonly accepted by the scientist is that at various times groups of people left their homes in Asia bearing with them, as their birthrights, the special attributes of their remote ancestors. They obeyed that imperious law of Nature that bids man and beast, bird and plant, spread and multiply. They wandered with their faces turned, like the faces of the flowers, toward the sun, southward and eastward, flourishing as all animate things flourish under its beneficent rays, developing knowledge and power as they journeyed. They skirted the seacoasts, the swamps, and the highlands, following the banks of the rivers, until those we now call Mayas reached the land we now call Yucatan. That, in broad outline, I believe to be the history of these people from the earliest times down to the coming of the Spaniards in 1506.

A brief study of the map of Yucatan, its topography, like a huge bag, open to receive and to hold all that enters, and its physical characteristics, will convince one that it is well adapted to encourage the growth of a distinctive culture and to develop it

so as to give it the characteristics of a true civilization.

Chichen Itzá, whenever it was first settled, came to be a great capital of the Mayas, and it was also for a brief time the capital of the invading Spaniards. That brings me again to make mention of Francisco de Montejo, whose palace in Merida I have described, for he looms largely in the history of Yucatan and of Chichen Itzá.

Francisco de Montejo was a striking character who deserved more honor than has been accorded his memory by modern writers. I feel like giving him his due and shall try to do so. Montejo was a native perhaps of Seville, perhaps of Salamanca. He was of noble descent and at one time — probably just before he embarked on his life of adventure — was possessed of considerable wealth.

According to the accounts of those who saw him shortly after his arrival in Mexico, he was then about thirty-five years old, of middle stature, of frank and cheerful countenance, sanguine in temperament and of an adventurous disposition. His first adventures were with Juan de Grijalva, who was sent by Diego Velasquez, the Governor of Cuba, on an expedition of discovery to the newly discovered continent. Montejo went along as one of Grijalva's officers.

The expedition left the port of Matanzas, Cuba, on April 6, 1518, with the proposed destination of Yucatan, but, forced out of its course by counter-currents, Grijalva discovered the large island of Cozumel. Crossing the channel they touched the mainland at a point not far from what is now Champotan, where they had

a fight with the Indians. Montejo got off without a scratch, although he fought bravely, but Grijalva had two of his teeth removed, not painlessly, by an arrow; after which entertainment the expedition moved on. Three days later they saw 'the mouth of a very broad river,' which, as they believed that Yucatan was an island, they thought to be its boundary. Accordingly they called it the *Boca de Terminas* — Mouth of the End; and so the expedition returned to Cuba to tell of the new and wonderful discoveries.

Some of the chronicles of this expedition state that Francisco de Montejo was the first European to set foot upon the soil of Mexico. I hope it is so. He certainly deserved the honor, but, we read that on the eighth of February, 1517, the expedition of Francisco de Cordova landed at what is now Cape Catoche on the mainland of Yucatan. Proceeding up the coast, they landed again at what is now the city of Campeche and a third time at Champotan, where they had a terrible battle with the natives, during which Cordova received twelve arrow-points in his body. From the effects of these wounds he died later at his home in Cuba. These facts, which seem to be well attested, leave me somewhat in doubt whether the valiant Francisco was really the first European to set his foot on the soil of Mexico.

After Grijalva's expedition there was another sent out by Velasquez and headed by Hernando de Cortez, later the famous conqueror of Mexico. Montejo was also an officer of this expedition. On February 19, 1519, Cortez with a fleet of ten vessels left the port of

Havana, to make as next port the island of Cozumel off the coast of Yucatan.

Francisco de Montejo, by his fearlessness and his frank, jovial bearing, won the confidence and esteem of Cortez and later, while in Mexico, Cortez sent him twice on confidential missions to Spain, bearing dispatches and presents to the King, Carlos V. On his first visit, the King, gratified by the glad tidings that he brought and, incidentally, by the richness of the gifts, bestowed upon him signal favor. On his second visit, besides the confirmation of his previous grants and privileges, he received from the King a new coat of arms^{*} as an acknowledgment of his valuable services during the expeditions of Grijalva and Cortez.

Besides these acknowledgments of service to the Crown, Montejo received a grant signed by the King and dated December 8, 1526. In this grant among other things it was stipulated that he should be Governor and Captain-General of Yucatan and Cozumel for life. It was at this time still believed that both Yucatan and Cozumel were islands. Also he was made *Adelantado* for life, and on his death the title was to descend to his heirs and successors forever. There was besides a detailed list of the perquisites that were to accompany the grant. With the grant there was also a task to be performed before the grant was finally confirmed.

He was, first, to make Yucatan by force of arms a

^{*} The blazon of this Montejo coat of arms can still be seen carved in stone above the grillwork of the balcony over the great doorway to the House of Montejo in Merida.

province of New Spain. He was to pacify the land, and to do his utmost for the good of the Church and the enrichment of the Royal Treasury. All this he was to do at his own expense until the receipts began to roll in from the conquered province.

In 1527 — the month is not known — Montejo sailed from Seville with a fleet of four vessels and four hundred men. His young son was with him. The fleet made port at Cozumel, took aboard a native as interpreter, and then crossed over to the mainland, where they raised the Royal Standard and took formal possession of the land in the name of the King. Leaving the mariners on board to care for the vessels, the Spaniards landed their arms and ammunition, their horses and provisions, and remained a few days encamped to rest and refresh themselves.

Then they commenced their long march down the coast. At a place called Aké they had a serious battle with the natives. The Indians were armed with 'quivers of arrows,'* sticks sharpened by fire at the points, lances with stone points, and 'two-handed swords of very sharp wood.' The battle lasted all one day and part of the next, when the Indians retreated with twelve hundred of their number killed. The Spaniards remained on the field, victors, but with many wounded.

By the end of the year Montejo had 'conquered,'

* With the personal experience gained by long contact with the Mayas and a somewhat intimate knowledge of the weapons used by them in those days, I am convinced that the so-called 'arrows' were actually the darts used as the projectile of the *hul ché*, the *atlátl*, or dart-thrower of the Vahautle. I have never yet found the bow and arrow depicted on any column or wall surfaces in the ruins of Yucatan.

more or less and for a time, the province of Yucatan for New Spain and for the Crown. Grown wise and crafty, perhaps, by the experience of himself and others, he now sought to make secure his titles and emoluments. But there was a royal decree that no person could legally claim the conquest of a province until he had at least possession of one castle with cannon mounted in it to back up his claim.

Montejo could claim that he had conquered the province 'more or less,' but could not read his title clear until he had a castle and cannon mounted on it. He had plenty of cannon, but no castle, and could spare neither time, money, nor men to build one. Where, then, was he to find a ready-made castle in a land where, so far as he knew, no castle existed? Montejo looked about him.

He learned that in the distant interior of the province was a great city, Chichen Itzá, the ancient capital of the Mayas, and that in this city were stone-walled edifices, palaces, public buildings, and temples. Straightway he headed for Chichen Itzá with his soldiery. He found, as he was told, a large city with structures of stone and lime, but deserted and silent, a city in ruin. Its chief temple dedicated to the worship of the Feathered Serpent, stone-walled and imposing, rested on a massive pyramid and towered above the surrounding region.

This edifice was just what the *Adelantado* was looking for. Knocking a hole in the bastioned north wall, he had, besides the three entrances to the structure, a palace in which he mounted a cannon, and presto! he had his 'castle with mounted cannon,' as called

for by the royal decree. With all the imposing formalities of the times, Chichen Itzá was declared to be the capital of the province that he had conquered — more or less and for a time. Then the natives, disquieted by the burdens laid upon them by the Spaniards and the desecration of their sacred city, drove the Spaniards out of Chichen Itzá and coastward toward Campeche and from there they fled the land. In 1535, not a single living Spaniard could be found in all the province.

But Montejo was not disposed to leave his task uncompleted thus, neither did he propose to lose his titles and the fruit of his labor. With his son and nephew, all Montejos and all Franciscos, he once again, in 1540, took up the task of conquest, and in 1541 at T'Ho the battle was fought that made the province utterly and finally a vassal province of New Spain. On January 6, 1542, the Maya city of T'Ho, capital of the province of Ceh-pech, was, with all formalities, changed into the 'Very Loyal and Catholic City of Merida,' capital of the province of Yucatan. In 1549 was built the House of Montejo. Thus did the Montejós complete their task and receive their rewards in titles, in fame, and in valuable privileges.

The hole in the wall where Montejo mounted his cannon and so changed the Maya temple into a Spanish castle was plainly visible for some years after I took my first photograph of the entire structure. Few of those who saw the opening then or who have seen it since know its history, and that it marks the time when the Temple of Kukil Can became for the

moment a Spanish castle. The closing of this breach by 'orders from Mexico' removed the last visible record of those times when Maya pre-history and Spanish history were so strangely intermingled.

CHAPTER III

THE GREAT MIGRATION

I HAVE said that the first mention of Chichen Itzá in the Maya chronicles is in the book of Chilam Balam of Mani. This is a curious document found by Don Juan Pio Perez, scholar and antiquarian, among the dusty old records and archives in the Town Hall of the Pueblo de Mani. Eliminating from this narrative most of the cumbersome and incomprehensible dates given, according to the Maya calendar, by the chronicler, I may translate it thus:

This is the series of the *katuns* [epochs] from the time they left the land and the House of Nonoual that was of the Four Tatal-Xiu to the west of Zuina:

The country from which they came was Tulapan. Four *katuns* they consumed in wandering, Holon Chan, their ruler, and his followers. In all, eighty-one years they passed before they came to this peninsula of Chacnovitan [Yucatan].

In the 8 Ahau, the 6 Ahau, the 2 Ahau [this is the Maya method of recording dates], Ahmekat Tutul-Xiu arrived. One year less than one hundred they were in this country of Chacnovitan.

It happened during this time that they discovered the province of Ziyancaan [Bacalar]. Sixty years they governed in Ziyancaan, and they came down here. In the years that they governed the province of Ziyancaan they discovered Chichen Itzá.

For one hundred and twenty years they reigned in Chichen Itzá. And they evacuated Chichen Itzá, going to inhabit Champutun, where the Itzáes — Holy Men — had houses.

Two hundred and sixty years the Itzáes ruled in Champutun and the city was then destroyed and evacuated. They returned, seeking their homes, and then the Itzáes passed several *katuns* in the uninhabited forests.

Forty years passed and they came back to their old habitations and they lost Champutun.

Ahcuitok Tutul-Xiu settled Uxmal and for two hundred years they reigned with the Governors of Chichen Itzá and Mayapan.

The Governor of Chichen Itzá was overcome because he was an enemy of Hunac-eel, Governor of Mayapan, a walled city, and this happened to Chaxib-chac of Chichen Itzá. Ninety years were passed when this occurred under the seven warriors of Mayapan: Ah-tzin-Teyut-Chan, Tzunte-cum, Taxcal, Pantemit, Xuchu-Cuet, Itzcuat and Kakaltecat.

In this same period they went to destroy King Ulmil because he made war on Ulil, King of Uxmal. Thirteen divisions of warriors they had when they were dispersed by Hunac-eel to make an example of them. This war was finished after thirty-four years.

The fortified lands of Mayapan were invaded by the men of Itzá and their King, Ulmil, because Mayapan had walls and because they governed in common the people of that city. Eighty-three years were passed when Mayapan was destroyed by the Governors of the people of the hills and also Tanchah of Mayapan was destroyed.

Sixty years after Mayapan was destroyed came for the first time the Spaniards and they gave the name of Yucatan to this country.

Neither the name nor the history of the writer of this record is known, but from the perfect command of both the native vernacular and the Spanish letters the document would seem to be the work of an educated Maya, written within a few decades after the Conquest. Many bright young natives, sons of the

nobles and the reigning families, were taken by the Church or by high lay officials and educated in Spanish learning. Thus Gaspar Antonio Xiu, the lineal descendant of the last King of Mayapan, was educated by Montejo, the conqueror of Yucatan and its first Governor.

The ancient Mayas, like most other races, had their bards and story-tellers, who wove into their songs and tales the history of their people. So it is not strange if some educated native filled, like the gifted Ixtlilxochitl, prince and writer, with the desire to perpetuate the fading history of his people, had recourse to the device of writing out, as his memory served, their early wanderings and ancient history; and then, with native subtlety, hid the documents under those longest filed away in archives likely to be safe and undisturbed for many years.

A large flat boulder that in some past age had fallen from the wall of the Temple of Kukil Can in that silent city of stone, Chichen Itzá, became to me a Tablet of Visions. Seated on its pitted surface I have dreamed at times of bygone ages and a vanished race of builders. Often these dreams came in the midst of darkness when the owls' wings softly brushed my cheek; or in bright moonlight when tiny fruit bats fluttered and squeaked as they munched their hoards in the niches of the temple. More often they came when the silvery mist which hovers over all things in the jungle just before daylight brings that which has been so near to that which is that they seem to be but one.

I stood by this Tablet of Visions at midnight. In the moonlight the old temple walls of limestone gleamed like silver and the past itself drew near. I saw about me a strange new land, surface streams of sparkling waters bordered by grassy plains, high-flung hillsides, thickly wooded, and naked crests that pierced the sky. Below me in the distance I heard voices, as if a multitude oncoming was chanting an invocation to their God, and a droning and throbbing as if the very hills were responding to a mystic summons.

From the jaguar seat of crystal before the Palace of Nonoual, Holon Chan, the ruler, spoke to the grave-faced elders grouped about him:

‘In the olden time, when man was nearer God and God was nearer man, our fathers dwelt in this land, the Chanes and the Nonoual in the land of Tulapan. The *katuns* passed in peace and quietness. None lacked for food, the game was plenty and the fields of corn, well tended, brought forth abundant crops. Of late have come years of famine and of warfare and of strange diseases brought from afar and settled among us. Now by awful portent has the God revealed his wrath. Therefore do I, the Holon Chan, cause the Great Summons to be sounded.’

The *tunkul*, the sacred drum, droned out its rhythmic call, and in fear and trembling the multitude came together, for none, even the oldest men, had ever heard the Great Summons sounded.

From the solemn Hall of Conclave in the land of the falling waters they came down. From the high-placed altars they came down, those good men who

saw God clearly, whose faces were in the sunlight above the drifting clouds. From the silent Groves of Learning, with their folds of written wisdom, came the *H'Menes*, wise men of the land. From the forest and walled places came down the *Batabes* and their followers, strong men with shields and shining weapons. From the ripened fields, the song of the loom and the smell of the fire-baked clay came the *Mazeuales*, the workers of the land. All these stood before the Palace of the Nonoual in the land of Tulapan and waited, listening to the summons.

From his jaguar seat of crystal the Holon Chan spoke to the waiting multitude:

'My children, none have been more devout at worship, quicker at the call of war, or greater in the arts of peace than the Chanes of Tulapan of the House of Nonoual. The temple of Hunal Ku, the Supreme One in the Sun, has ever been filled with sweet-smelling flowers and the smoke of the fragrant incense burning. The Palace of the Kings is decked with captured banners. The Chamber of the Treasures is heaped with conquered shields and trophies. Yet now we endure hunger, pestilence, and constant war with the strange peoples who come down from the north in numbers like the star points in the heavens. In final proof that the Sacred One has turned his face from us, last night a lightning bolt pierced the Sacred Room and shattered the Symbol.

'Look! Look ye all, even to the meanest slave, for the God himself has rent the veil and thrown down the sacred vessels. They are stained with blood and by our ancient creed are now no longer sacred.'

He threw aside the Sacred Veil and gave up to light and view the niche wherein for unknown centuries had lain the Symbol unseen by profane eyes. Not even the priests of the lower orders had dared to raise their eyes in the direction of these Sacred Things. Slowly, in writhing masses, the people approached, but only the bravest might look.

The curtain, once of spotless white with cabalistic signs, was singed and stained with great red splashes. The floor of colored onyx, the altar of chalcedony, were cracked and torn and the riven plates of polished stone were thrown in shapeless heaps. The Symbol, the vessels of gleaming crystal, polished jade and radiant gold, were in fragments. At the altar's foot lay the Chosen One, the High Priest, Ah Kin Chan. His vestments, richly worked with the signs of the Sacred Mysteries, were torn and stained and blood still flowed from the dreadful wounds in his burned and blackened body.

The voice of the Holon Chan broke the awed silence of the multitude:

'My children, last night the Chosen One, Ah Kin Chan, told me of a dream. He heard the sound of many sandalled feet that passed and faded in the distance. He saw men in vast numbers pressing onward in a pilgrimage of nations, on and on until lost and buried in the dim forest depths. Evil has fallen upon the land of Tulapan. It may be that we should leave our homes to wander and so soften the wrath of the Divine One; climb the mountain-side, delve the forest's depths, swim the rivers, inhabit the caves, build new cities, rear new temples. What say you?'

Like muffled thunder came the answer of the people: 'Let us wander!'

Thus came to be the *Noh-nial*, the Great Migration, when the Chanes of the Nonoual in the land of Tulapan left the dwellings of their fathers to seek in unknown countries the peace and safety denied them at home.

Four epochs they consumed in wandering, Holon Chan, their ruler, and his followers.

He who led them in all their wanderings, the Holon Chan, was passing homeward to the Sun. Blood-red, the sun was setting in the heavens. The low-hung clouds were piling above the dark green of the forest tops when the Holon Chan, fast dying, gave this command:

'Make for me a stone-walled chamber, small in size but well cemented. Robe me with the Great Regalia and place me there as if yet living and asleep. By my side place bowls of *keyem*, plates of food, and my flint-edged sword. Then close my tomb as is our custom, and go your way.'

It was done. A great mound rose above the levelled plain. Its sides were of cut stone plates, well worked, of divers figures and many shapes. Each side was halved by broad stone steps that led from the plain beneath up to the terrace top. On this mound was a high stone temple with carved columns and white, gleaming walls, and upon the inner walls were painted with careful detail and loving knowledge the mighty deeds of the Holon Chan, his peaceful actions and the watchful care he ever had in the leading of his people. And in the very centre of this great mass of heaped-

up stone, smooth, white walls, and deep-carved pillars, there was made a thick-walled chamber, small in size but well cemented. He was robed in the Great Regalia and they laid him there, according to his command last given. They closed his tomb with the ancient customs, his broken lance-heads strewn upon it, his famed war banner furled and torn, his shrill war whistle forever mute. Then they left him resting and went on their way.

Na Caan Chan, his eldest son, was now their ruler. Many years they wandered in a dense and trackless forest. Many died from thirst and hunger, from serpents' fangs and the claws of wild beasts. Young men grew old and died and their children were gray-haired, yet still they pressed on.

In all, eighty-one years they passed before they came to this peninsula of Chacnovitan.

At last they reached a far land with fertile plains, wooded hills, and rivers of cool water. The High Priest, Ah Kin Chan, thrust his sacred staff into the yielding ground.

'Here let us seek to make our peace with God,' he said. 'Here shall be builded a great city, stone-walled, with a high-placed temple.'

The city grew in size and fame, with temples, palaces, and towers. In all the land it was supreme and peace seemed to have made its home within its bounds. The years passed in peace and plenty. Yet ever was there a deep remembrance of the warning of the inspired Chilam, the Sunlit, the Bright One, the Chilam Balam:

'Let blood once stain the temple steps and woes

without number shall fall like a dreadful hail on all therein. Dead and abandoned shall be the city.'

There came a time when the High Priest passed to his home in the Sun. The followers of the newer temple sought to make for them the high priest. Against this jealous quest, brother fought brother and the high steps of the temple were profaned with blood.

Dead and deserted now lies the city. Jaguars breed beneath her altar. Vipers lie sunning on the stained temple steps and crested lizards run scrambling and scratching in and out of the ruined temple door. The little wild honey bee stores his sweetness in the yawning rents of the high stone tower. On the terraces great trees are growing. Dead and abandoned lies the temple. Snake-like roots with resistless force are wrenching apart its massive walls. And over all the vines are growing, flowery vines with rich perfume, shrouds woven by the Divine One in the Sun to cover the frame of the great city slain.

It happened during this time that they discovered the province of Ziyancaan. Sixty years they governed in Ziyancaan.

Again the Chanes commenced to wander. Again after years of suffering they were allowed by the All-Wise One to find a haven. This time no mountains shut off their vision. In their place were the boundless ocean, fertile soil, and swamp-like jungles, shallow bays and deep lagoons. And here they built the city of Ziyancaan, 'where the sky and waters meet.' They drained the swamps and cleared the woodland. Upon the plains they raised terraced hills, man-made but

God-directed. The temples were built gleaming sunward and the palaces were silver in the sunlight. Food was plenty, fish from the sea, game from the forest, fruits and grain from the soil, and fowl from the air above. ¶

Men died from many causes, stricken by fell diseases, or killed in battle with the tattooed wild men who came in canoes from the Outer Seas, but none died of hunger. The land was thickly peopled and as the *katuns* came and went, Ziyancaan grew in power and numbers until the towns and smaller places were like one great garden.

But then among the people, the rulers and the chief men of the nation came a strange unrest, like Chikin Ik, the Tempest Breeder, the dread East Wind, mild itself, yet breeding danger. Alarmed, they consulted Ah Kin Chan, the aged High Priest, deeply learned in ancient lore and present wisdom.

‘In ancient times,’ said Ah Kin Chan, ‘my fathers, the Chanes of Nonoual, the People of the Serpent, found the dark-skinned savage Mayas living in damp caves and forests, eating roots and crawling things, more like beasts than men. Then my fathers, the light-skinned Wise Men, took the dark forest people and bound them with fetters of fear and love, raised them to the light of day. Ever the Chanes, the wise men of Nonoual, led the Mayas in their great advances.

‘I, too, am a Chan of Nonoual, but we are now few among the dark-skinned Mayas. I, too, feel within me rising the spirit of my ancient race. I, too, seek to lead my people and found a mighty city. Away

beyond the wooded hills, the roaming hunters tell, lies a land of level forests, fruitful fields and rocky plains, with few swamps to chill us till we burn with fever or shake with pain. There the rivers flow deep-buried and in their places are mighty wells. There I go to build a city that shall be the Sacred City of my people, the People of the Serpent. Let those who will put on their sandals and go with me.'

In the years that they governed the province of Ziyancaan they discovered Chichen Itzá. For one hundred and twenty years they reigned in Chichen Itzá.

CHAPTER IV

THE PLANTATION OF CHICHEN

THE tale of how I became a Yucatan planter is bound up with a study which I made of one phase of Maya architecture. The idea of purchasing an abandoned plantation, and incidentally a ruined city and the Sacred Well, came to me when I visited Chichen Itzá on one occasion to test the justification of my belief that the ancient builders had evolved the design of those great stone structures from the palm-thatched huts that were the primitive homes of their ancestors, as they are the homes of their descendants to this day, much as they developed the Indian corn or maize from a grass seed to a grain that became the staff of life, first to their own people and then to half the world.

I demonstrated * that the *Ná* — Maya hut — is the germ unit of the edifice chambers and the edifice simply a collection of *Nás* expressed in stone and mortar. The so-called Maya arch, which is an arch in name only, is but the idea of the *Ná* roof structure, with its series of stringers bound with rattan to the ridgepole, expressed in stone and lime. No keystone is ever attempted, and the upper walls of the edifices, though ever inclining inward, never meet. Their truncated planes are met and bound by flat stone slabs and the weight of the mass above them. The

* Edward H. Thompson. 'Genesis of the Maya Arch,' *The American Anthropologist* (N. S.), vol. 13, no. 4, October-December, 1911.

Maya builders accomplished stability by keeping the centre of gravity of the principal masses within the supporting walls.

The question arises why a people, so intelligent as to evolve a calendar system little short of marvellous in its accuracy, should have adhered to an architectural plan so faulty in principle and cumbersome in practice. The reason is simply that evolution which for a time held sway was later arrested, cut short by a period of conventionalism, and the process of crystallization set in. The chamber evolved from the *Ná*, and the edifice was but a grouping of the *Nás* when conventionalism gained the upper hand and development ceased. Conventionalism holds among the brown-skinned race today. 'Who am I that I should do different from what my father did?' is a frequent expression on the tongue of the native Maya.

I had selected a typical *Ná* in the village of Pisté, near the ruined group of Chichen Itzá and the 'House of Dark Writings' in that ruined group as my type buildings in conducting these researches. I was seated one day on the terraced roof of the Nunnery studying the surroundings and talking with Pedro Chablé. I noticed a few hundred yards to the southeast some long formless mounds of broken masonry, their outlines blurred by forest growth and tangled vines.

'That does not look to me like the ruins of a Maya building,' I said.

'You are right, Don Eduardo,' replied Pedro. 'It is all that is left of what was once the big *casa grande* — plantation house — of the old plantation Chichen. The *Comandante* of the garrison at Pisté told me

about it yesterday, how the plantation was destroyed and the houses burned by the *Sublevados* in 1847. He said that the bones of the old owners were probably still beneath those fallen walls.'

As I gazed upon those shapeless heaps of toppled walls and jungle tangle and noted the fertility of the soil and the luxuriant forest that rose in solid masses behind it, an inspiration came to me. I would purchase the old plantation, rebuild the houses, plant the fields, fill the corrals with fine cattle, and from the sale of the crops, stock, and timber, finance my scientific ventures.

Upon my return to Merida I sought out the heirs and offered to purchase the place for a reasonable sum. They were young men who evidently had given up any idea of restoring the plantation. 'It is too close to the *Sublevados*,' they said naively. With the assistance of my friend Allison V. Armour of Chicago, who had frequently visited the ruins with me and had often expressed a wish that I should have a scientific home where I could carry on my work of research, the purchase was soon made.

Pedro then went into the frontier towns and villages where my faithful old native followers had their homes and recruited a sufficient number of skilled laborers, carpenters, masons, and woodsmen. Among them were two brothers of Pedro, dependable, capable men. With sufficient material and men to handle it, in less than a year from the time that I became owner, the plantation was rebuilt on the foundations of the old structure, which dates from 1681, but with many modern conveniences. Palm-thatched *Nás* — the

homes of the workers — were grouped about the *plaza*. From them came the soft voices of the native women at their household duties and the prattle of children. Hens cackled and the roosters crowed lusty defiance at their rivals. The old plantation once more pulsated with life and motion.

All the men were earnest and skilful. Pedro had seen to that when he recruited them. Some were found in the villages far in the interior while others came from Merida and near-by places, but all were woodsmen familiar with the ways and means of life in the forest and jungle. The lime was calcined in kilns and the white earth — *sahcab* — that served in place of sand to temper the mortar was dug from pockets in the ground after the manner of the ancient builders of a thousand or more years ago. And so the work went on apace.

From the front corridor of the plantation house, framed between the arch and the carved stone pillars, the massive form of *Las Monjas* comes into view like a beautiful picture. How far this name, *Las Monjas* — The Nunnery — indicates the true purpose of the edifice, we do not know; but we do know that the ancient Mayas did have a certain form of religious organization which included holy women. This structure was one of the largest and is probably one of the oldest in the whole group.

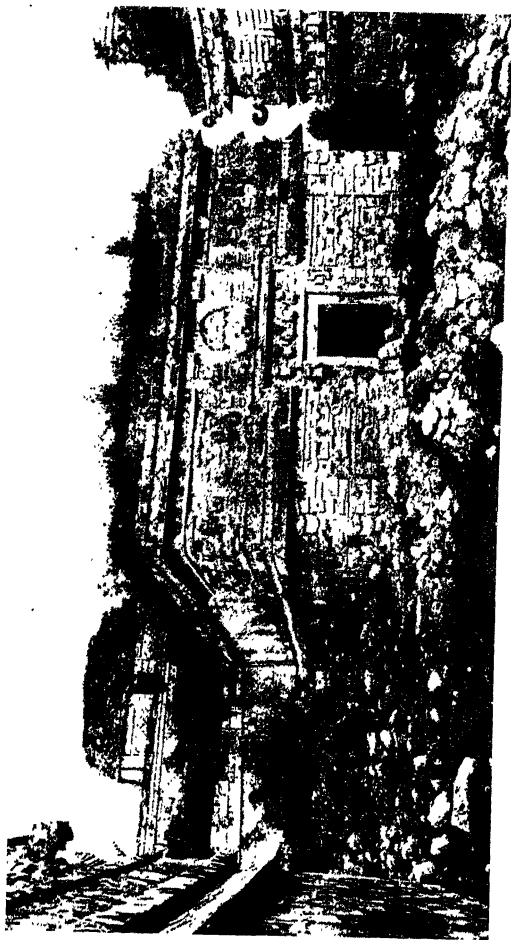
I once worked my way through a large crevice in its base material until I was covered with a dark green mold and the dust of ages. I found in the very centre of this material a small primitive temple of cut stone. The wall surfaces of this early edifice had been

pitted and its angles dulled by the action of time and the elements before it had been embedded in the material of a new structure. Several times this process had been repeated until the present structure was completed.

I have already mentioned that while the Mayas recognized One Supreme Being, the *Hunal Ku*, their religion was essentially a form of nature worship, with the serpent and the sun as emblems of the chief deities. These ancient builders seem to have had their religious beliefs ever in their minds, for the façades of palaces, temples, and public buildings are covered, not with merely ornamental designs, but with the more or less conventionalized serpent motive in almost endless variations.

The eastern wing of the Nunnery, and especially the eastern façade of that wing, offers remarkably fine examples of this fact. The greater portion of the wall surfaces on either side of the doorway is covered with repetitions of the so-called Serpent Mask, with the eyes, mouth, and serpent fangs standing out clearly. Several of the chambers in this edifice are still habitable. The long narrow chamber of the eastern wing served me as a dormitory while the plantation house was being rebuilt and in it I had an interesting adventure.

My native workmen occupied the chambers in the rear. The chamber that I slept in was illumined at night by one small kerosene lantern suspended by a cord from the ceiling and as the night wore on the light generally went out, having exhausted its fuel. We slept in hammocks and my hammock was swung



THE NUNNERY

diagonally at the end of the chamber. Two wood ducks, presents of a grateful native and very tame, had taken up their abode in a corner behind my hammock. I was quite willing to have them do so, for their presence relieved me from the visitations of sundry cockroaches, centipedes, tarantulas, and the like that had often made it lively for me at night.

Once I was awakened some time after midnight by the excited hissings of those ducks, but the light had gone out and in the darkness I could see nothing. I jumped from my hammock in my stockinged feet and landed on a big, squirming reptile, so powerful that with a single twist it threw me off my balance and I fell flat on my back across its writhing body. I yelled to my Indians for light, and they rushed in with lighted torches and sharp machetes in time to slash the head from a big boa, the *och can* of the Mayas. The reptile had no designs on me. It was hungry and, having discovered the ducks, had been trying to make an early breakfast of them when I suddenly came down on him with both feet and changed the current of his thoughts.

The *och can* is really not so bad, as boas go. They say that in South America and in Africa the boas really are bad and will swallow a man as a fly-catcher swallows a gnat. But I cannot swallow whole even this tale — did you ever notice that the worst fellow always lives in the most distant village?

When sleeping in a distant Maya pueblo, as a guest of the *Batab*, I have sometimes been awakened by a soft rustling in the palm leaves of the thatch above me and have seen the thick wedge-shaped head of a

big yellow *och can*, looking at me meditatively with sparkling, lidless eyes. I have then turned over in my hammock and gone to sleep again, knowing that the inspection of my person was merely from curiosity and that the big snake was stalking black-eyed rodents and not blue-eyed Yankees.

All the same I once lost a valuable manservant through a big *och can*, although I do not mean to imply that the boa swallowed the servant. I had established upon the grounds of my bungalow home in Merida — *La Quinta Arcadia*, we named it — a small but up-to-date dairy with blooded American stock and modern equipment. When the Chichen plantation was fully on its feet, I thought it best for economical reasons to transfer the greater part of the herd to the plantation, leaving only a few of the milch cows to fill the home needs. The dependable Canary Islander José, who had taken care of the herd, had become attached to it and asked me to let him still care for it on the plantation.

‘All right, José, you can go to Chichen if you want to,’ I said. ‘I will pay you the same wages as here, but understand you will be under the orders of the *mayordomo*.’

The *mayordomo* reported that José was a capable, willing servant, well liked by all. But when the time came for my next visit to Chichen, almost the first person who came to talk to me was José and what he wanted was his time and the money due him.

I looked at him at first surprised and then, noting a certain shamefaced constraint in his manner, I said: ‘Look here, José, tell me truly! Have you been

up to any tricks?' I knew if he had that he was doing the wise thing in leaving if he wanted to escape the sudden tickling of a knife-blade under his ribs.

'Oh, no, sir!' he answered earnestly.

From his manner I knew that he spoke the truth and, rather nettled at his reluctance to speak out clearly what he had on his mind, I said nothing, but paid him off. And so José passed from my ken.

The next day the *mayordomo* told me the reason for his sudden departure. It seems that José was very near-sighted. He managed to keep this fact a secret until one day when the *mayordomo* sent him to the *bodega cuatro* — storehouse No. 4 — for a measure of corn. Storehouse No. 4 was, quite unknown to José, not only a storehouse but the habitation of a guardian, a *voluntario*, in other words, a big *och can*.

The boa is a very efficient rat-catcher and much appreciated in the outlying places where cats are themselves victims of other predatory creatures. The serpents are often caught and placed in storehouses to keep the vermin down. Sometimes they stay, but more often they do not. But a boa who saunters into a storehouse of his own accord and, finding conditions to his taste, decides to stay there becomes what is known as a *voluntario* and a much-prized asset to the place. He automatically becomes not only the official rat-catcher for the storehouse, but a vigilant guardian as well.

The big *och can* of No. 4 was a volunteer who had hunted and lived in the place almost from the time it was built and used as a storehouse for Indian corn.

By night it hunted the nooks and crannies, by day it slept on the hard dirt floor in front of the door where a large patch of sunlight came through the open transom.

If the person who opened the door and entered was an old servant known to the snake, the thick head raised a yard or more above the floor would sink back into the coiled pile once more and the boa would keep on napping. If the visitor was unknown to the boa, the upraised neck would stiffen like a bar of iron, immovable, but the head with its fierce, unblinking stare would follow every movement of the newcomer, who either peered in and then hastily shut the door again, or else went about his errand and finished it without undue delay.

And so poor José went blithely on toward one of the outstanding experiences of his life. Merrily whistling and intent on his errand, he threw open the door of the storehouse and entered briskly. Tossing his tall-crowned, wide-rimmed Mexican hat over the top of a near-by post, he had started to get the corn when the post lunged forward and knocked him down. Poor José told his story to the sympathetic *mayordomo* and then said mournfully that, while he liked the master, the *mayordomo*, and all the rest of the people on the plantation, he was convinced that the plantation itself was no place for a nervous person and as he was very nervous he felt that he must go.

One of the men cutting palm leaves to thatch a storehouse found a very poisonous snake called *uolpoch* right in his path. Luckily he saw it in time and killed it before it had a chance to sink its fangs

in his leg, for a *uolpoch*, it is said, never moves from its place for either man or beast. I do not really know the species to which it belongs and I do not know of anyone who does. It may be one of the crotalids, but if so it is a rattlesnake without a rattle. The natives fear it far more than they do the rattler, and Pedro described this feeling when he said:

‘The *tzá*, the rattler, is a noble snake. It knows fair play and gives warning before it strikes. But the *uolpoch*, the Evil One, is like a traitor. It lies like a great fat maggot full in the path. It lies still and strikes silently like an assassin. With the venom of its fangs a bloody sweat comes out on the bitten one; then the blood thickens in the veins and the swollen body commences to rot before the life has left it. It is a thing to be dreaded, this *uolpoch*, above all other creatures.’

CHAPTER V

THE CHATELAINE'S HOMECOMING

MY WIFE had always taken the greatest interest in all my official work and scientific undertakings. At her request she had been appointed consular clerk so that she might carry a share of my official burden, and later, when I resigned as consul so that I might devote all my time to archæology, she continued to render constant and invaluable assistance in these activities. After the purchase of the plantation and before the work of rebuilding had fairly ended, she desired to go there with me and for a while, at least, share the work, the privations, and even the dangers.

Before this time all the journeyings to and from Chichen Itzá had been by means of horses and pack-mules. Many plantations in the interior, even those of large size, had only mule-paths connecting them with the nearest towns. All their traffic was borne by pack-mules and native *cargadores* — carriers. So far as I knew, Chichen was one of these plantations that had never had either a carriage-road or a cart-track to connect it with civilization. But now that my wife wished to take an active part in the undertaking, I determined that, cost what it might, she should enter her domain in style, that is to say, in a *volan*. In another part of this book that simple, but useful, vehicle has been described.

There was a road of a sort from Yzamal, the end of the railroad, to Valladolid, the largest city of the



THE AUTHOR'S HOUSE

interior, and from the frontier town of Dzitas a fairly serviceable road led up to the plantation of Muxukux. Muxukux was a large sugar plantation owned and worked by General Daniel Traconis, the general who commanded the federal forces in the State of Yucatan.

General Traconis was a gentleman of the old school and a high military official. He was also my warm friend. He was a native of Yucatan, a graduate of the military school at Chapultepec. It would be difficult to find a higher type of manhood than a well-bred *caballero* of Mexico or Yucatan and it would be equally hard to find a more gracious or more charming woman than a well-bred *señora* of either Yucatan or Mexico. And among the lower classes are many diamonds in the rough and pearls unpolished.

General Traconis was not large of stature, but his heart and his courage were those of a giant. When I told him that I planned that my wife should be the first woman to enter Chichen in a *volan*, he was much interested and promised his aid in carrying out the project. He said that in old times the ladies of the planters often visited and sometimes lived on the plantation. They had litters, often handsomely fitted like the Chinese palanquins, carried by four stout menservants. This kind of vehicle was probably used by the ladies of the sixteenth and seventeenth centuries when the plantation was first built.

'And so,' he said, 'we can make your desire to have Mrs. Thompson the first woman to enter Chichen by *volan* come to pass.'

And then we two went into executive session. The

General was to put a gang of soldiers and a working gang of woodsmen at work opening the road from Muxukux to Chichen and I was to put on a similar force working from Chichen to Muxukux. This was carried out with military exactness and on schedule, according to the instructions of the General.

Two days after leaving Merida our two *volans* carrying ourselves, our children, and our native servants, arrived at Muxukux. An accompanying mule cart with the baggage made our outfit quite a caravan. The General was away on duty, but Doña Luisa, his kindly wife, gave us a cordial welcome. After a night's rest we waved good-bye and rolled away on our high-wheeled vehicles.

The road was well made by the servants of the General. The trees either were cut down close to the ground or their stumps were taken out by the military sappers. When the stones in the way were not too large, they were dug up and rolled away out of the path. The road so made was a good one, as country roads went in Yucatan, and the journey on it was uneventful. But when we reached the point where the road made by the orders of the General ended and that made by the servants of Chichen started, things began to happen. The stumps had been left too high in places, and when the wheels of the *volan* struck them, the vehicle pitched and rolled in a way that amused the children, but gave their mother, with the memory of the Labna ride still fresh in her mind, considerable anxiety. A big wild boar scurried out of the path, gnashing his white tusks as we lurched past him. A flock of resplendent wild tur-

keys boomed through the forest arcades on each side of us, to the excitement and pleasure of the children. However, everything was going well when one of the mules, generally so sure-footed, slipped on the slanting surface of a smooth-faced rock in the middle of the road. In falling he knocked the mule next to him, the bar mule, off his feet, too; then, naturally, the third mule followed. The two-wheeled vehicle poised for a moment and then went slowly over on its side, while the passengers inside went into a general mix-up.

With one small daughter, I was seated in front beside the driver. As the *volan* went down, the little nursemaid, valiantly protecting the baby in her arms, rolled toward me. I picked the children up and landed on my feet close to the driver, who was holding the mules' heads down close to the ground to keep them from kicking until everyone was out of the *volan*. The children were unhurt and excitedly chattering, while my wife was busily trying to escape from a well-filled suitcase that seemed bound to cling to her.

No serious damage had been done, the *volan* was easily righted, and the journey resumed, but the driving was slower and more cautious.

Finally the *volans* passed under the stone-arched gateway of the main corral, stopped in front of the rear corridor, and the journey of the first woman to enter Chichen in a *volan* came to an end.

The *mayordomo* had not expected us to arrive for several days and the rooms of the *casa principal* had not been prepared. They were filled with drippings

of lime mortar and piles of stone chips left by the masons in making the new roof and ceiling. But while we got out our hammocks and bedding, willing servants gathered up all this rubbish and swept the rooms clean, incidentally collecting various centipedes, tarantulas, and scorpions which had been brushed out of their hiding-places.

The next day was a busy one for my wife and the servants and an exciting one for the children who watched the giant toads paddling in the big stone watering-troughs of the corral, listened to the squawks of the parrots in the near-by trees, and looked at the cattle as they stolidly pushed the toads aside and drank the clear cool water that poured into the trough from the ninety-foot well that had been hewn out of solid lime over two hundred years before, when the plantation was first made.

That night, with everything clean and orderly, we again took to our hammocks, tired but satisfied. True, the plantation house had as yet no doors — the carpenters were still at work upon them — but the roof over our heads was new and sound, the walls were thick and strong, and the charcoal fires in the kitchen worked perfectly.

We slept soundly except for a brief interval in the small hours when an inquisitive cow came wandering into the chamber and, gazing down at my sleeping wife, breathed upon her gently. My wife, opening her eyes and seeing the long face and mild bovine eyes above her, said 'Shoo,' and the cow, abashed, shooed. I tied some lariats across the doorways as a sign that the occupants did not want to be disturbed

again before morning, and we then all went to sleep again, resting tranquilly until the noisy blackbirds in the big laurel trees of the corral told us that it was morning.

A few days after our arrival in the *volan*, even though the new gates to the old cattle corrals had not been made, much less hung in their places, I purchased a fine young bull to add to the native stock. This was hardly a prudent thing to do under the circumstances, but the chance that came to me was one that might not occur again and I succumbed to the temptation. Before sundown the cattle were safely penned in one of the side corrals, sniffing into the corners inquisitively and examining with much curiosity the felled trees that barricaded the gateways.

Satisfied with myself and all the world, I returned to the *casa principal* and, in generous mood, gave the *vaqueros* permission to attend the *jarana* — native festival — that was to be held that night at the nearby town of Pisté. Off they went, taking with them their wives, their children, and their dogs, all in one confused, noisy, and happy crowd. I knew that some of them would probably return somewhere along the small hours of the morning exhilarated with native rum, but what did it matter? Let them enjoy themselves in their own way. No serious harm would probably come to them, to me, or to my newly acquired cattle.

I ate supper, chatted awhile with my wife, discussed some of the interesting articles in the latest number of the *National Geographic Magazine*, and

then my wife went to bed. I read awhile, wrote up my notes for the day, and, as I prepared to tumble in for the night, noted for the first time the heavy black clouds that were gathering. Apparently a norther was approaching.

It seemed to me that I had just commenced to doze when a sudden crash of thunder and a flash of lightning brought us wide awake. The thunder rolled and the lightning flashed incessantly. As we listened for each crash of sound, we heard amid the tumult of the thunder a deep sound like the bellowing of a bull. We listened again, and the sound was repeated. It seemed to come from near the centre of the big corral, the one that had no tree-trunks barring it, as it had been left vacant. Only the timbers were there ready for the carpenters to work upon the next day. I concluded that the bull had somehow managed to get out of the side corral into the main one and that he probably would head for his old home, giving us a two days' job to get him back again.

Grumbling to myself and in spite of my wife's remonstrances, I took up the only lantern available, the festive *vaqueros* having taken the others. This one I soon found had its glass globe badly cracked, but that could not be helped. Then, just as I was, in thin pajamas and bedroom slippers, I started down the broad corridor headed for the corral. My idea was to drive the bull away from the unprotected entrance before he had time to reach it and then get him back into the side corral again somehow. If he had jumped out, I might make him jump back again — perhaps.

As I went down the stone steps that led to the corral, the rain began to pour down. At first it came in drops, single, big and far between. They splashed through the thin material of my pajamas and, as they reached the warm skin beneath, they seemed more like dashes of ice-cold water than mere drops of rain. Listening, I seemed to place the bellowing not far from the centre of the main corral and, cringing at the pelting rain, I walked gingerly but rapidly toward the spot. A sudden furious swirl of wind and rain whipped the branches of the laurels in the corral and entered the cracked shade of the lantern. The wick sizzled and then went out.

'I will not go back into the house until I get the bull back where he came from,' I muttered to myself and clinched my jaw to keep my teeth from chattering. 'I'll finish the job by the flashes of lightning.' And I waited for the next flash, ready to move on.

Then came the expected flash, and it showed me, not the bull that I expected to see, but a big jaguar standing on a bald limestone knob of the ledge not fifty feet away from me. The big head was held down close to the ledge, with eyes closed, and the great cat was just in the act of giving utterance to a roar that seemed to make the solid rock beneath vibrate, the roar that I had thought to be the bellowing of the bull.

I had not lost any jaguar and I did not care to find one just then.

I think that I covered the distance back to the corridor in not more than five flying leaps. I took

back the broken lantern with me, but I left my slippers behind. I found them next morning buried in the mud. I rushed through the corridor and burst into my chamber like a dragged whirlwind and, without stopping to answer the startled queries of my half-awake wife, snatched up my heavy revolver, a Colt .45, twirled its loaded chambers to see that it was working all right, and was about to start for the corral once more, this time to seek for the jaguar that I had so unexpectedly found.

Then I remembered that the only lantern in the house was out of commission. I tried to relight the lamp wick, found it impossible, tossed it aside, put on dry pajamas, and then, after consigning all outside things like roaring jaguars, truant bulls, and irresponsible *vaqueros* to a region where a mere commotion like this terrestrial tempest would be considered comparative calm, I tumbled into my bed and into a troubled sleep.

The next morning I awoke to find things not so bad as they had seemed the night before. Nature had washed her face clean and everything looked bright and cheerful. The jaguar had vanished without creating a disturbance and the bull was where he should have been, guarding the females. The *vaqueros* were back on their jobs, sober, cheerful, and willing. Nothing was injured beyond repair, except the slippers.

I learned from old native hunters that jaguars during a norther often roam restlessly out of their usual hunting grounds, excited and uneasy, but not usually in search of prey. At such times, so the



THE GATEWAY OF SADNESS

hunters told me, their roars do sound like the bellowings of a bull. That fact, reported to me by such indisputable authorities, restored my mislaid self-respect.

Leandro Poot, the *Batab*, had come over from his pueblo to spend a few hours with me at the plantation and to talk over some matters of mutual interest. We had finished the business in hand and were sitting in the rear corridor silently musing for the moment. The sun had gone down and a deep silence was over all, that mysterious quiet that comes when the noises of the day have ceased and those of the night not yet begun. The new gate in the old gateway of the front corral creaked suddenly as the *vaqueros* drove the cattle up to the big stone watering-troughs that formed one end of the corral.

The eyes of the *Batab*, slow moving and bright in spite of his age, fixed themselves, not on the cattle or the *vaqueros*, but on the old gateway.

'That big stone gateway has a history,' he said. 'It was told me by some of my father's people and by those who had a part in the making of that history. That old stone entrance ought to be named the Gateway of Sadness.'

'Through that gateway my father's people passed when they came from our chief pueblo, Chan Santa Cruz, to attack the pueblos of the white man, Dzitas, Tunkas, and even Motul. When they came back, victorious, from these places with many prisoners, all young men and women, and loaded down with booty, it was under this same gateway that

they passed again on their way back to Chan Santa Cruz.

‘They passed through it and then they halted, for the *Batabes* had planned that at this gateway the spoils were to be divided among the fighting men. This was done. The *Batabes* divided the spoils among the fighting men of our people. The young women captives were given to the unmarried men as wives. The men prisoners were kept as slaves and were loaded with the booty of our fighting men.

‘Each young fighting man, with his white woman, sobbing, and each young man captive, groaning, laden with the booty of his master, passed under this old archway toward the great pueblo of our people.

‘There in Chan Santa Cruz each captive that had a trade — carpenter, tinsmith, or mason — was made to work at his calling for the good of the pueblo. The women bore children that grew up able to defend the people and the pueblo. I have seen these people, the children of these white women, and I know that these are true words.’

CHAPTER VI

THE MAYA DATE STONE

HARDLY had I set foot among the ruined edifices of Chichen Itzá before I commenced to search for a certain inscribed tablet which I believed might be found there. This was not merely a stone covered with hieroglyphic inscriptions, but one bearing the Initial Series, a tablet with a date in chronological order carved upon it. This search never ended until I discovered the beautiful Tablet of the Initial Series in what is now known as Old Chichen.

A thousand yards or more to the northwest of the plantation houses lies a tangled cluster of mounds, low terraces, and edifices that have crumbled to their foundations. It was while hunting in out-of-the-way places for the long-sought stone that I came upon this mass of demolished edifices, aqueducts, and terraces until then unknown. I named it Old Chichen Itzá, and it was in this section of the city that I found the Tablet of the Initial Series, the Date Stone. I had found such a stone long before and the vision of its clear-cut inscription was in my thoughts by day and my dreams by night until the inscribed tablet of Chichen Itzá replaced it.

While working at Labna, I went on an expedition to a distant group of ruins known to the Indians as 'Old Walls,' and it was there that we came upon the now famous Date Stone of Xkalumkin. This trip has been described in a chapter relating to my ex-

periences while lost in the desert. The stone of Xkalumkin and that which I came upon on the highest mound of the Old Chichen group are the only two Initial Series known to exist in northern Yucatan, although many have been found on stelæ in the older cities located in the southern part of the Maya area.

My attention was first attracted to this mound by a recumbent figure of a jaguar of the kind that archæologists now call the *chacmool* type, placed in front of the main stairway, with carved stone incense vases on either side.

When the time was ripe, I examined it. The mound itself was about thirty feet high and had been built upon a wide terrace about twenty feet above the general level. Upon the platform that crowned this mound rested the much-ruined remains of a small temple. Big trees had grown up through and around the temple, had destroyed the roof, and wrenched apart the walls. They had partially thrown to the ground the two Atlantean figures that had sustained the temple entrance and with them the lintel stone, covered with inscriptions. Time passed. Other big trees grew over the temple, their roots bound the inscribed tablet as with iron bands, and meanwhile the rich blanket of dark loam grew thicker and thicker.

A wandering Indian corn-planter, noting the rich soil, felled the trees, made his planting, gathered his crops, storing them in one corner of a still-standing chamber near by. Then he, too, as time passed, went on his way, and Nature, ever working, so covered up



THE INSCRIBED TABLET OF CHICHEN ITZÁ

his doings that only the keen eyes of an archæologist could note them later.

And there I found the Tablet of the Initial Series — the inscribed and dated Tablet of Chichen Itzá. Not a Rosetta Stone, but nevertheless a valuable aid in working out the chronology of the ancient group. Speaking in round terms, the date thus recorded, when translated into our chronology, gives us approximately A.D. 618. This of course does not fix the age of the city, only that of this particular edifice.

The late Dr. Brinton of Philadelphia had access to the notes and other original material gathered by a learned and laborious student in the field, Dr. Carl Berendt. Dr. Brinton became one of the foremost authorities on the Mayas. Among the material he inherited from Berendt is a statement made by a native writer which he translates as follows: 'They [our ancestors] used [for numerals] dots and lines back of them, one dot for one, two dots for two, four dots for four, and so on. In addition to these they used a line; one line meant five, two lines ten, one line and a dot above it, six, with two dots seven, four dots nine, a dot above two lines eleven, three dots thirteen. A dot meant one and a line five.'

This statement is borne out by facts. Written in the few old Maya volumes that have escaped the flames of fanaticism and vandalism, carved on the stone faces of tablets and stelæ, are the dots and lines mentioned by the ancient native writer and they signify just what he says they do.

To explain the meaning of the Initial Series, some reference must be made to the Maya calendar. Of

this remarkable system Herbert J. Spinden, who has contributed so much to the working-out of the Maya chronology, has this to say:¹

The thirty-three years between August 6, 613 B.C., and December 22, 580 B.C., witnessed, perhaps, the first admirably conceived and patiently completed piece of systematic science anywhere in the world. We read of the astronomical prowess of He and Ho in the legendary ages of China, and we find a mythical glory wreathed around the head of Thales when Greece was young. But the unknown American scientist who solved the tangle of disharmonic lunations, planetary cycles, and tropical years by inventing the Central American time machine did more than any of these. He carried out observations of an astronomical nature and created the very tools of thought with which to work. He developed a permutation which gave fleeting units of time a personality and a name; he evolved a hieroglyphic method of recording essential facts in relation to each other; he devised place-value notation for numbers which made possible the first arithmetic. More than all this, he so impressed himself upon his fellow men that the highly intellectual machine which his mind set in motion continued to function without a fault until it was wrecked upon the burning scaffolds of the Inquisition. The Mayan calendar which this man invented ran without the loss of a day for 2148 years and controlled the religious and civil life of several nations.

The hieroglyphics of Mayan months carry the tell-tale marks of the year when they were first drawn on paper. The notational system for place-value numerals is linked with the moon: the conventional picture of that orb means twenty, or completion, or zero, because the natural month of twenty-nine or thirty days — measured from new moon to full — served as the imaginative basis of an arbitrary

¹ Herbert J. Spinden. *The Reduction of Mayan Dates*. Papers of the Peabody Museum of Harvard University, vol. 6, no. 4, Cambridge, Massachusetts, 1924.

arithmetical month equal to the second degree in vigesimal numeration. This and the bar-and-dot numerals offer us a picture of the process of counting.

The great idea that presented itself to this calendar-maker was to use the day as the unvarying measure of all time phenomena. This great idea came a second time to Scaliger, the father of the modern science of chronology, who published it with important results in 1582. The first American scientist conceived time as a sequence of days to be correlated with sequences of moons or months, with sequences of seasonal phenomena or years, with sequences in the slow journeyings of the planets across the starry waste. And this controlling sequence of the days he held in the leash of memory by a permutation of names and numbers.

He had, of course, some traditional matter to help him. The primitive year of primitive people is the sidereal year, determined by the heliacal setting and rising of certain stars and constellations, for this relationship once observed becomes fixed in story. We still speak of the rainy Hyades after the manner of Hesiod. Or else it is the year determined by the points of sunrise that the first observers see. In the seventh century before Christ, when our Mayan genius began his labors, the lunisolar year departing from the winter solstice seems to have been in use. Doubtless the twelve or thirteen moons of this cycle had names which reflected the passing show of natural events. Doubtless also the shamans and magicians of that time were accustomed to try the fates on mechanistic layouts which were permutations of different kinds of things.

The Maya year consisted of eighteen months of twenty days each with an additional short month of five days, called *Uayeb*, to round out the 365-day period. The 'leap-year' error was calculated, but not interpolated. There was also a cycle, or *tzolkin*, a permutation system with two factors, 13 and 20. In

this cycle a day with the same number and the same name recurs every 13×20 or 260 days. Because, however, of the five-day Uayeb period, the order of the day names in the months can be the same only at five-year intervals. Thus, to make the situation still more confusing to the non-mathematical reader, it will be seen that the day names and numbers must run through a cycle of variations of 18,980 days, the least common multiple of 260, the permutation, and 365, the conventional year. This is known as the 'calendar round.' A Maya day thus recurs once every fifty-two calendar years.

I will take for example a part of the chronological inscription on the date stone found at Old Chichen — 9 Muluc 7 Zac. This may be translated as 'the day named Muluc as ninth day in a thirteen-day week occupies the seventh position in the month Zac.' This makes everything quite simple. But further to complicate matters, I must say that the Mayas also used a lunar calendar and one based on the revolutions of Venus. There is abundant evidence that they were remarkable students of astronomy and Spinden is of the opinion that the Dresden Codex, one of the three ancient books rescued from the fires of De Landa, would, if it could be fully translated, prove to be one of the world's outstanding works on astronomy.

But there is one more element to be considered in deciphering the so-called Initial Series tablets. In these the Mayas, in addition to setting down the 'calendar round' designation, computed the total number of days which had elapsed since the begin-

ning of their Mundane Era. This is a mythical date called 4 Ahau 8 Cumhu, recovered on our calendar as October 14, 3373 B.C. The so-called Historical Era begins from the time the day count was inaugurated August 6, 613 B.C., and it is probable that the ancients allowed a certain time before that to include all previous history. This period was seven *katuns*, seven being one of the mystical numbers with them, as with other primitive races.

The Central Americans used the vigesimal system of counting which probably had its origin in the fact that one man has twenty digits, fingers and toes. Eighteen months of twenty days constituted a *tun*, which means a stone. Twenty of these *tuns* of 360 days each constituted a *katun* of 7200 days. Next in the ascending scale comes the *baktun* of twenty *katuns*, or 144,000 days. The month is a *uinal* and the day a *kin*.

The Initial Series gives the number of elapsed days from the epoch of the Mundane Era and gives the name and number of the day reached and its position in a Maya month. The Initial Series is usually followed by a supplementary series which concerns the lunar calendar, and often there are numbers of days to be added or subtracted from the Initial Series date. Spinden has reduced the Chichen Itzá date as follows:

10 *baktuns*, 2 *katuns*, 9 *tuns*, 1 *uinal*, 9 *kins*, 9 Muluc 7 Zac, = October 1, A.D. 618.

Adding the 16 *uinals* and 11 *kins* of the supplementary series brings this result:

10 *baktuns*, 2 *katuns*, 10 *tuns*, 0 *uinal*, 0 *kin*, 2 Ahau (13 Chen) = August 28, A.D. 619.

Both of these dates fall within the last *katun* of the first occupation of Chichen Itzá, according to the chronicles.

The Initial Series of Xkalumkin is less ancient. Some of its inscriptions have been defaced and an exact reading is thus impossible. Spinden finds the most likely version to be November 14, A.D. 1016.

CHAPTER VII

THE HIGH PRIEST'S SEPULCHER

TO THE west of the Nunnery, some three hundred yards or more, is a small shapeless mound. The stairways on each of the four sides are wide and well built and lead up the terraced sides to the platform on which a ruined temple stands. On both sides of each stairway are balustrades formed by the bodies of great stone serpents whose wide-open jaws rest on the surface that supports the pyramid, while the upraised tail rests on a platform above.

Climbing with difficulty the northern stairway, I found myself standing on the stone-covered platform in front of what had once been a small but important stone temple. When perfect, it had been a very well built and graceful structure, but in the passing of the ages the temple roof and most of its walls had fallen, and its débris, rolling down the sides of the terraced pyramid, had converted it into the shapeless mound that I first saw.

The four columns that had supported the vaulted roof of the temple were still standing and upon portions of their carved and panelled surfaces were symbols and figures that tempted me to uncover the column entirely. To do the work thoroughly, I cleared the platform. In doing this, I discovered that at some period two smoothly finished stone tiles of large size had been let into the floor space on a level with it and between the four stone columns. Prying

these stone slabs up, with much trouble, I found myself gazing down into a large square shaft. The walls of this shaft were of well-cut stones overlapping each other like clapboards, with each angle masked by bands of smoothly finished stone. I determined to find out the purpose of that carefully made shaft.

Gazing into its depths by reflected light and clearing away the interlacing rootlets and the vermin that hid in them, I found at a depth of about twelve feet portions of a human skeleton much gnawed by rodents and earthen vessels broken by material falling from the roofing and half-buried in an accumulation of lime chips, mortar dust, and insect casts. When all this was removed, the floor of this grave turned out to be a loose stone tile. I lifted it off and found a second grave, similar to the first, but in a better state of preservation.

To make the story short, we found five graves superimposed on one another in that shaft. In the third grave I found a handful of copper bells, small in size, and turned to verdigris. In the fourth grave I found a necklace of handsomely cut and finely polished rock crystal beads. The floor of this last grave was on a level with the base of the pyramid, and I naturally concluded that, as the pyramid rested on the limestone ledge rock of the region, my work of excavation was automatically ended. Then I observed that the stone floor tiles still persisted and, lifting them, I discovered to my surprise a series of steps hewn out of the living rock down into a chamber also rock-hewn. The stairs were covered and the

chamber filled with wood ashes. The only way I could enter that chamber and solve its mysteries was by lying flat on my back and pushing my feet ahead of me through the ashes and into the chamber, which I did.

I filled baskets with ashes and passed them up over my head to the workmen who relayed them up the shaft to my young sons on the platform. They received the material and disposed of it as it came up. As I filled the baskets and passed them on, I could see, from time to time, the sheen of polished jade beads and the dull outlines of others broken and half-fused by great heat. In this way I gradually cleared the chamber and made room for four of my workmen to enter. The place was small and unventilated, and light was furnished by tapers stuck to the walls. We were all hot and perspiring. I stripped from my waist up — the men did not need to, for they were always clothed in that way. I had worked my way down the cave until my feet rested at the end wall of the chamber, one foot on each side of a square stone slab that seemed to rest carelessly against the wall.

'We'll consider this a day's work,' I said to my men. 'I'll look under the stone to see if any pieces of jade are there and then we'll go up.'

I grasped the stone slab with both hands and, almost of itself, it fell back, disclosing a large black hole in the floor surface beneath it. Out of this hole came a gust of cold damp air that made gooseflesh of our heated skins and put out our candles. There we were in utter darkness in the bowels of the earth,

and I was balanced over a hole leading into who knew what depths and blackness.

My natives in the chamber with me commenced to say tremulously, 'O Don Eduardo, this is surely the mouth of Hell.'

'Not so,' I answered confidently. 'Since when has the mouth of Hell given forth a breath as cold as this wind?'

This logic appealed to them and, reassured that Hell was not as near as they thought, they became brave and willing again. Had they known what their ancestors' idea of Hell was, they might not have been so easily reassured. The ancient Hell of the Mayas — *Metnal* they called it — was a place like a cold damp swamp where the souls of the lost were forever seeking to keep their heads above the heavy black mud.

By stopping the hole with our clothes and hats, we shut off the air current and once more lighted our candles. I also lighted a small safety lantern that I had brought with me — a wise precaution when one enters subterranean chambers. Tying the lantern to the ring of a hundred-foot steel tape-line, I was ready for the next move. Slowly removing the plug of hats and clothing I waited until the inrush of air had ceased in a measure, then approached the opening and peered into its depths. It was approximately three feet in diameter, circular in shape, and had been cut through about a yard of solid limestone ledge rock.

By letting the tape-line down with the lantern attached to it, I found that the depth of the pit or sepulchre, whatever it might prove to be, was fifty

feet. This fact and the knowledge that the floor of the pit was dry was all I could learn then, but I was not contented. I had two of the natives grasp each of my feet at the ankle, and then, head downward, my body swinging like a pendulum with my tape and light below me, I managed to get a good idea of the place. Calling my men to haul me up, which they did, with the loss of a few inches of skin from my bare chest as I went over the rough edge of the hole, I returned to my normal position and began to make my notes.

After getting back my breath, I told my workers that we would quit for the day and go home, but would return very early on the morrow prepared to go down into that hole. I also warned them not to tell anybody what we were doing lest they laugh at us and call us crazy. As a matter of fact, I was certain that we had made a very important find, and I did not want any more witnesses than I could help.

The next morning bright and early every man was at hand. The block and tackle was ready, the candles with which to light up the dark place, trowels, brushes, and boxes. Placing one foot in the noose of the rope, I took my sharp hunting-knife between my teeth, thus leaving my hands free for action if needed, and swinging myself over the edge sank down into the darkness of the pit.

My feet finally rested on a mound of earth and stone almost directly under the hole and, looking down, I saw at my feet the outlines of an alabaster vase in which were beautiful jade beads and a pendant. The vase was broken, but the carved sur-

face was covered with bands of conventional design and very beautiful. In places it showed traces of pigment, and the jade jewels that it still held despite the fracture glistened under their covering, the dust of ages.

After noting in my book the details of this find as I observed them, I carefully removed the treasure to a safe place and called to my men to come down. They swarmed down the ropes like the natural acrobats that they were and then we all went to work, digging, scraping, brushing, and packing for safety. Among the finds were mother-of-pearl objects set in a white oval of polished shell, apparently intended to be the eyes of some figure; also, a curiously worked flint object somewhat resembling the votive stone sickles of the ancient Druids. We also uncovered some large oval pearls, evidently portions of what was once a wonderful necklace. Most of them were so badly decayed by contact with the earth acids or calcined by burnt copal incense that they turned to dust at the touch, but enough remained to show their character and substance.

We ate and drank as the spirit moved us and then continued with the work until I could feel that a weariness was creeping over us. I gave the signal to stop work and get ready to go up into the outer world. When we reached the temple platform with our trophies, we saw a strange sight.

It was eleven o'clock in the evening. We had passed all of the day and part of the night in the work. A darkness as of midnight was all about us and on the plain beneath, the families of my work-

men were crying and lamenting, with my wife and children trying in vain to calm them.

'No use!' they wailed. 'The master and all of our people are dead and gone. The Great Serpent has taken them and we shall never see them again.'

Great was the rejoicing when we triumphantly appeared with our trophies and came down to them.

This was one of the red-letter days in my life as an archæologist. I had discovered and investigated what was probably the sepulchre of a high priest of the Mayas, the first, and up to now the only, one of the kind ever found and studied.

The five graves in the vertical shaft above what I call, for want of a better name, the sepulchre of the high priest, what of them? Whose bones, decayed and turning to dust, rested in the graves when I first uncovered them? Were they the acolytes or the servants of the high priest whose bodies were so placed as to guard in death as they served in life this high and sacred personage? Or were they priests of a lower order, whose friends sought for them by this last close contact a higher place in the future life? Who knows?

We may never know, but among the upright stones on the northern side of the temple platform were a kind of stelæ with hieroglyphic inscriptions carved on their faces. These inscriptions no man can yet decipher, but we hope that, when our knowledge of these symbols becomes more certain, these writings, dimmed by time but still visible, will clear up much that is now mysterious. With this hope before us we must for the present be content.

The grave at Chichen was probably that of an *Ah Kin*, or high priest. On the panelled face of a large stone pillar in the Temple of Kukil Can is carved the figure of a high priest clad in rich regalia and above that figure, carved and painted with blue pigments, is a *chel*, or bluebird, emblem of the line to which the high priest belonged by right of birth. Among the ancients the *Ah Kin* was a priest. The *H'Men* was a wizard or medicine man. The *Chilam Balam* was a prophet or soothsayer, important according to his personal abilities and character.

Many years ago the eminent Yucatan jurist, Juan Molina Solis, commenced writing his now noted 'History of Yucatan,' and in order to prove certain facts and collect necessary data he sent his youngest brother, Audomaro Molina, also an earnest student of history, to Spain to delve among the old documents in the custody of the Government and in the libraries of the religious institutions. Among the interesting material brought back by Audomaro was much that threw considerable light on certain phases of the Maya social organization, until then somewhat vague.

The chief ruler of each of the several provinces of what is now Yucatan was called the *Batabil Uinic*, or *Batab*. His power was truly despotic; he was an absolutely autocratic ruler within the confines of his province. The *Batabes* were probably always men. If a woman ever filled the office in Yucatan, no record exists of the fact, either in document or by tradition.

The official next in power was the *Holcane* or *Kulel*, military chief. His office was an hereditary

one. It was the *Holcane* who personally transmitted the commands of the *Batab* and who as *Kulel* at times represented the *Batab* in important councils and ceremonies. The *Nacone* was a chief of considerable importance, but his was an elective office. In a certain capacity he had as a religious chief and a celibate, he was much respected as well as feared.

The *Tupiles* were the official messengers. They were the tax collectors, and in other somewhat undefined ways also important. The *Holpopes* were the heads of municipal affairs, officials corresponding in a way to our constables. They were the caretakers of the public properties. It was a *Holpope* who had under his care the *tunkul*, or sacred drum. A *Holpope* was also official announcer of important events.

CHAPTER VIII

THE WELL OF SACRIFICE

I HAVE referred before to an article, 'Atlantis Not a Myth,' written during my college days, and of the important bearing it had on determining my future course. It was while hunting up material for this article that I first came upon an old volume written by Diego de Landa, one of the earliest Spanish missionaries to Yucatan and later bishop of that diocese. Among other things recounted in quaint old Spanish in this book was a description of Chichen Itzá, the capital and sacred city of the Mayas. The wise priest laid special emphasis upon the traditions concerning the Sacred Well that lay within the confines of the city.

According to these traditions, as told to De Landa by his native converts, in times of drought, pestilence, or disaster, solemn processions of priests, devotees with rich offerings, and victims for the sacrifice wound down the steep stairway of the Temple of Kukil Can, the Sacred Serpent, and along the Sacred Way to the Well of Sacrifice. There, amid the droning boom of the *tunkul*, the shrill pipings of the whistle and the plaintive notes of the flute, beautiful maidens and captive warriors of renown, as well as rich treasures, were thrown into the dark waters of the Sacred Well to propitiate the angry god who, it was believed, lived in the deeps of the pool.

From the moment I read the musty old volume,



THE SACRED WELL OF CHICHEN ITZÁ

the thought of that grim old water pit and the wonderful objects that lay concealed within its depths became an obsession with me. Then, long years after, by what seemed to me almost an interposition of Providence, I became the sole owner of the great Chichen plantation, within whose confines the City of the Sacred Well and the Sacred Well itself lay.

For days and weeks after I purchased the plantation, I was a frequent worshiper at the little shrine on the brink of the Sacred Well. I pondered, mused, and calculated. I made measurements and numberless soundings, until, not satisfied but patiently expectant, I put my notebook aside and awaited the accepted time. It came when I was called to the United States for a scientific conference. After the session was over, at an informal gathering I told of the tradition concerning this Sacred Well of Chichen Itzá, of my belief in its authenticity, and the methods by which I proposed to prove it.

My statements brought forth a storm of protests from my friends.

'No person,' they said, 'can go down into the unknown depths of that great water pit and expect to come out alive. If you want to commit suicide, why not seek a less shocking way of doing it?'

But I had already weighed the chances and made up my mind. My next step was to go to Boston and take lessons in deep-sea diving. My tutor was Captain Ephraim Nickerson of Long Wharf, who passed to his reward a score of years ago. Under his expert and patient teaching, I became in time a

fairly good diver, but by no means a perfect one, as I was to learn some time later. My next move was to adapt to my purpose an 'orange-peel bucket' dredge with the winch, tackles, steel cables, and ropes of a stiff-legged derrick and a thirty-foot swinging boom. All this material was crated and ready for immediate shipment when ordered by either letter or wire.

Then, and not until then, did I appear before the Honorable Stephen Salisbury of Worcester, Massachusetts, and Charles P. Bowditch of Boston, both officers of the American Antiquarian Society and of Harvard University of which the Peabody Museum is a part. To them I explained the project and asked the moral and financial aid of the two organizations they represented. Although I had headed several important and successful expeditions under the auspices of these institutions, I found both of these gentlemen very reluctant to put the seal of their approval upon what they clearly believed to be a most audacious undertaking. They were willing to finance the scheme, but hesitated to take upon themselves the responsibility for my life.

I finally argued them out of their fears, and all other obstacles having been overcome, the dredge and its equipment were duly installed on the platform to the right of the shrine, and close to the edge of the great water pit, the Sacred Well.

During my preliminary investigations I had established what I called the 'fertile zone' by throwing in wooden logs shaped like human beings and having the weight of the average native. By measuring the rope after these manikins were hauled ashore, I

learned the extreme distance to which sacrificial victims could have been thrown. In this way I fixed the spot where the human remains would probably be found. Regulating my operations by these calculations, I found them to respond with gratifying accuracy.

I doubt if anybody can realize the thrill I felt when, with four men at the winch handles and one at the brake, the dredge, with its steel jaw agape, swung from the platform, hung poised for a brief moment in mid-air over the dark pit and then, with a long swift glide downward, entered the still, dark waters and sank smoothly on its quest. A few moments of waiting to allow the sharp-pointed teeth to bite into the deposit, and then the forms of the workmen bent over the winch handles and muscles under the dark brown skin began to play like quicksilver as the steel cables tautened under the strain of the upcoming burden.

The water, until then still as an obsidian mirror, began to surge and boil around the cable and continued to do so long after the bucket, its tightly closed jaws dripping clear water, had risen, slowly but steadily, up to the rim of the pit. Swinging around by the boom, the dredge deposited on the planked receiving platform, a cartload of dark brown material, wood punk, dead leaves, broken branches, and other débris; then it swung back and hung, poised, ready to seek another load.

For days the dredge went up and down, up and down, interminably, bringing up muck and rocks, muck, more muck. Once it brought up, gripped lightly in its jaws, the trunk of a tree apparently as

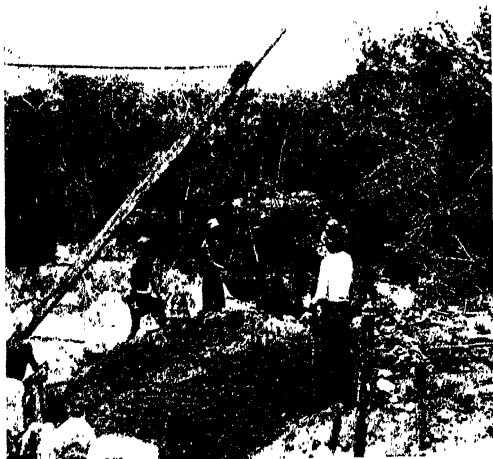
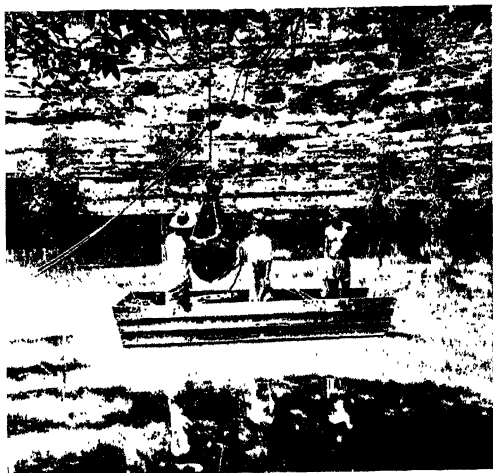
sound as if toppled into the pit by a storm of yesterday. This was on a Saturday. By Monday the tree had vanished and on the pile of rocks where the dredge had deposited it only a few lines of wood fibre remained, surrounded by a dark stain of a pyroligneous character. Another time the dredge brought up the bones of a jaguar and those of a deer, mute evidence of a forest tragedy. And so the work went on for days.

I began to get nervous by day and sleepless at night.

'Is it possible,' I asked myself, 'that I have let my friends into all this expense and exposed myself to a world of ridicule only to prove, what many have contended, that these traditions are simply old tales, tales without any foundation in fact?'

At times, as if to tantalize me, the dredge recovered portions of earthen vessels undeniably ancient. I resolutely threw aside the thought that these might be the proofs I sought. Potsherds, I argued, were likely to be found anywhere on the site of this old city, washed from the surface deposits by rains. Boys are boys, whether in Yucatan or Massachusetts, and have been for some thousands of years. The instinct of a boy is to 'skitter' any smooth hard object, stone or potsherd, across smooth waters like those of the deep water pit and then it rests amid the mud and rocks at the bottom until brought up by the dredge. I could not accept these chance potsherds as the proofs that I required.

One day — I remember it as if it were but yesterday — I rose in the morning from a sleepless night.



DREDGING THE SACRED WELL

The day was gray as my thoughts and the thick mist dropped from the leaves of the trees as quiet tears drop from half-closed eyes. I plodded through the dampness down to where the staccato clicks of the dredge brake called me and, crouching under the palm leaf lean-to, watched the monotonous motions of the brown-skinned natives as they worked at the winches. The bucket slowly emerged from the heaving water that boiled around it and, as I looked listlessly down into it, I saw two yellow-white, globular masses lying on the surface of the chocolate-colored muck that filled the basin. As the mass swung over the brink and up to the platform, I took from it the two objects and closely examined them.

They were hard, formed evidently by human hands from some substance unknown to me. They resembled somewhat the balls of 'bog butter' from the lacustrine deposits of Switzerland and Austria. There, ancient dwellings were built on piles in the midst of the lake to protect them against raiding enemies. The crocks of butter were suspended by cords let down between the piles and immersed in the ice-cold water for preservation. Despite all their precaution, raids did occur and the dwellings were destroyed by casual fires as well as by raids; so the crocks of butter fell unobserved from the charred piles down through the icy waters to rest unheeded in the increasing deposit until ages of time changed them into the almost fossilized material known to archæologists as 'bog butter.'

But these two nodules could not be bog butter, for unless the known data are strangely wrong, the ancient Mayas kept no domestic animals of any kind,

much less cows or goats. They seemed to be made of some resinous substance. I tasted one. It was resin. I put a piece into a mass of lighted embers and immediately a wonderful fragrance permeated the atmosphere. Like a ray of bright sunlight breaking through a dense fog came to me the words of the old *H'Men*, the Wise Man of Ebtun: 'In ancient times our fathers burned the sacred resin — *pom* — and by the fragrant smoke their prayers were wafted to their God whose home was in the Sun.'

These yellow balls of resin were masses of the sacred incense *pom*, and had been thrown in as part of the rich offerings mentioned in the traditions. That night for the first time in weeks I slept soundly and long.

For a long time the belief had been growing in my mind that the scientific exploration of this Sacred Well of Chichen Itzá was to be the crowning event of my life-work, and that to do it as it should be done, I must give it all my time and attention. With the finding of these two nodules of incense and realization of what they indicated, this belief became a certainty. After much reflection I resigned my position as consul and devoted myself entirely to the work.

From that time on for months there was seldom a day when the dredge failed to yield objects of great scientific interest, earthen vessels, temple vases and incense burners, arrow-heads, lance-points finely shaped and chipped with wonderful skill, axes and hammer stones of flint and calcite. There were copper chisels, too, and disks of beaten copper covered with symbolical emblems and the conventionalized figures

of the Maya deities, bells, disks, and pendent figures of low-grade gold, beads, pendants, and fragments of jade. Among the finds were the skeletons of young women, of thick-skulled, low-browed men. In every detail the old traditions were corroborated.

And now we come to the weirdest part of the weird undertaking, but, in order to put each thing in its proper place and make all matters clear, I must speak once more of the details of the sacrifices at this Sacred Well as reported in the ancient accounts.

The legend regarding the Sacred Well and the sacrificial rites performed therein was so clearly and yet so quaintly stated by the *Alcalde* of Valladolid, Don Diego Sarmiento de Figueroa, in 1579, that I am going to give his account here. Valladolid is the shire town of the *partido*, or county, in which Chichen is situated, and the *Alcalde* corresponds as nearly as possible to the officer we call mayor. This account is the official and authentic report rendered by the *Alcalde* to his sovereign, Carlos V of Spain. He writes of the Sacred Well, called by him the *Cenote*, as follows:

The lords and principal personages of the land had the custom, after sixty days of abstinence and fasting, of arriving by daybreak at the mouth of the *Cenote* and throwing into it Indian women belonging to each of these lords and personages, at the same time telling these women to ask for their masters a year favorable to his particular needs and desires.

The women, being thrown in unbound, fell into the water with great force and noise. At high noon those that could cried out loudly and ropes were let down to them. After the women came up, half dead, fires were built

around them and copal incense was burned before them. When they recovered their senses, they said that below there were many people of their nation, men and women, and that they received them. When they tried to raise their heads to look at them, heavy blows were given them on the head, and when their heads were inclined downward beneath the water they seemed to see many deeps and hollows, and they, the people, responded to their queries concerning the good or the bad year that was in store for their masters.

I had some time before caused to be built a large, flat scow to serve me in the diving operations which I planned to carry on later and had lowered it by means of the derrick down to the surface of the well. There, moored to a rock shelf, it floated on the still water, awaiting the time for its use. One day I sat in it writing my notes and waiting for repairs that were being made on the dredge. The scow was moored ten feet under the overhang of the cliff-like wall and directly under the site of the derrick, sixty feet or more above. Looking casually over the gunwale, I saw that which gave me a thrill. It was the key to the story of the woman messengers in the old tradition.

The waters of the two great *cenotes* around which the ancient city was built are totally unlike. The water of one, called by the natives *Toloc*, and used by me as a bathing-pool, is dark blue by reason of depth, but is actually as clear and transparent, if not as cool, as the waters of a mountain lake. The water of the other, *Chen Ku*, or Well of the Sacrifices, is, on the contrary, dark colored and turbid, changing in hue at times from brown to jade green and even to a blood-red, as I shall later describe, but it is always so turbid

that it reflects the light like a mirror rather than deflecting it like a crystal.

Looking over the gunwale of the pontoon and downward to the water surface, I could see, as if looking down through great depths, 'many deeps and hollows.' They were in reality the reflections of the cavities and hollow places in the side of the cliff directly above me.

When they recovered their senses, the women had said: 'Below, there were many people of their nation and they... responded to our queries.' As I continued to gaze into those deeps and hollows, I saw below many people of their nation and they, too, responded. They were the heads and parts of the bodies of my workmen, leaning over the brink of the well to catch a glimpse of the pontoon. Meanwhile they conversed in low tones and the sound of their voices, directed downward, struck the water surface and was deflected upwards to my ears in words softly sounding in native accent, yet intelligible. The whole episode gave me an explanation of the old tradition that developed as clearly as the details of a photographic negative.

The natives of the region have long asserted that at times the waters of the Sacred Well turn to blood. We found out that the green color the water sometimes shows was caused by the growth of a microscopic algæ; its occasional brown hue was caused by decaying leaves; and certain flowers and seed capsules, blood-red in color, at times gave the surface of the water an appearance like that of clotted blood.

I mention these discoveries to show why I have

come to believe that all authentic traditions have a basis of fact and can always be explained by a sufficiently close observation of the conditions.

The time finally came when the dredge no longer brought up valuable material from the bottom of the well. For weeks and months it had ceaselessly chewed its way through the thick deposit on the bottom within the area of the 'fertile zone.' For some time past the material that collected in the basin of the dredge was mostly a thin, watery mud, with only an occasional object of scientific value embedded in it. For a while the dredge doubled its trips and lessened the time of making them by dumping the load into the waiting scow, where the contents were carefully examined and the tailings dumped on the shore of the Little Beach.

On the western side of the Sacred Well and nearly on a level with its waters, a rock shelf stands out from the cliff-like walls far enough to form a narrow beach and strong enough to support a thick clump of balsa-wood trees called by the natives *mash*. The interlacing roots of these strange trees, half-buried in the black mold about them and half-showing, darkly smooth and shining, seem like the writhing bodies of antediluvian reptiles. In the moist and darkly shadowed places beneath them can be seen the glistening eyes of giant toads, turtles, and lizards. This little beach is like a scene from the time when the world was young.

As each afternoon the tailings were thrown from the scow to the beach, the big lizards, their serrated backs bristling, would slink silently deeper into their

holes, and the giant toads, their eyes blazing like diamond points in the darkness of their sheltered crannies, would cry out in deep-toned chorus: 'Don't! Don't!'

At least so it seemed to me as, wet to the skin and plastered with sticky, black mud, I kept on throwing out the tailings.

CHAPTER IX

A DIVER IN THE SACRED CENOTE

WHEN the dredge at the Sacred Well came up holding in its basin only the mud and sticks that had fallen into it from the loose material above; when the sharp-pointed steel teeth came up gritting with slivers of the rock bottom between them, we decided that our work with the dredge was finished. From now on human fingers must search in the crevices and the crannies of the bottom for the objects that the dredge could not reach to grasp. Nicolas, a Greek diver with whom I had previously made arrangements, arrived from the Bahamas where he had been gathering sponges. He brought an assistant, also a Greek, and we prepared at once for under-water exploration.

We first rigged the air pump in the boat, no longer a scow but once more a dignified pontoon, and then the two Greeks, turned instructors, taught a chosen gang of natives how to manage the pumps and send through the tube in a steady current the air upon which our lives depended and how to read and answer signals sent up from below. When they considered that the men were letter perfect, we were ready to dive.

We rode down to the pontoon in the basin of the dredge and, while the assistant took his place by the men at the pump to direct them, we put on our suits, outfits of waterproof canvas with big copper helmets weighing more than thirty pounds and equipped

with plate-glass goggle eyes and air valves near the ears, lead necklaces nearly half as heavy as the helmets and canvas shoes with thick wrought-iron soles. With the speaking-tube, air hose, and life-line carefully adjusted, I toddled, aided by the assistant, to where a short, wide ladder fastened to the gunwale led down into the water.

As I stepped on the first rung of the ladder, each of the pumping gang, my faithful native boys, left his place in turn and with a very solemn face shook hands with me and then went back again to wait for the signal. It was not hard to read their thoughts. They were bidding me a last farewell, never expecting to see me again. Then, releasing my hold on the ladder, I sank like a bag of lead, leaving behind me a silvery chain of bubbles.

During the first ten feet of descent, the light rays changed from yellow to green and then to a purplish black. After that I was in utter darkness. Sharp pains shot through my ears, because of the increasing air pressure. When I gulped and opened the air valves in my helmet a sound like 'pht! pht!' came from each ear and then the pain ceased. Several times this process had to be repeated before I stood on the bottom. I noted another curious sensation on my way down. I felt as if I were rapidly losing weight until, as I stood on the flat end of a big stone column that had fallen from the old ruined shrine above, I seemed to have almost no weight at all. I fancied that I was more like a bubble than a man clogged by heavy weights.

But I felt as well a strange thrill when I realized that I was the only living being who had ever reached

this place alive and expected to leave it again still living. Then the Greek diver came down beside me and we shook hands.

I had brought with me a submarine flashlight and a submarine telephone, both of which I discarded after the first descent. The submarine flashlight was serviceable in clear water or water merely turbid. The medium in which we had to work was neither water nor mud, but a combination of both, stirred up by the working of the dredge. It was a thick mixture like gruel and no ray so feeble as that of a flashlight could even penetrate it. So we had to work in utter darkness; yet, after a short time, we hardly felt the fact to be a serious inconvenience; for the palpic whorls of our finger-ends seemed not only to distinguish objects by the sense of touch, but actually to aid in distinguishing color.

The submarine telephone was of very little use and was soon laid aside. Communication by the speaking-tube and the life-line was easier and even quicker than by telephone. There was another strange thing that I have never heard mentioned by other divers. Nicolas and I found that at the depth we were working, from sixty to eighty feet, we could sit down and put our noses together — the noses of our helmets, be it understood — and could then talk to each other quite intelligibly. Our voices sounded flat and lifeless as if coming from a great distance, but I could give him my instructions and I could hear his replies quite clearly.

The curious loss of weight under water led me into several ludicrous mishaps before I became accustomed

to it. In order to go from place to place on the bottom, I had only to stand up and push with my foot on the rock bottom. At once I would rise like a rocket, sail majestically through the mud gruel and often land several feet beyond where I wanted to go.

The well itself is, roughly speaking, an oval with one hundred and eighty-seven feet as its longer diameter. From the jungle surface about it to the water surface varied from sixty-seven to eighty feet. Where the water surface commenced could be ascertained easily, but where it left off and the mud of the bottom began was not so easy to determine, for the lines of demarcation did not exist. However, I can roughly estimate that of the total depth of mud and water, about sixty-five feet, thirty feet was a mud deposit sufficiently consistent to sustain tree-branches and even tree-roots of considerable size. About eighteen feet of this deposit was so compact that it held large rocks, fallen columns, and wall stones. Into this mud and silt deposit the dredge had bitten until it had left what I called the 'fertile zone' with a vertical wall of mud almost as hard as rock at the bottom and fully eighteen feet high. In this were embedded rocks of varied shapes and sizes, as raisins are embedded in plum puddings.

Imagine us, then, searching in the darkness, with these mud walls all about us, exploring the cracks and the crevices of the rough limestone bottom for the objects that the dredge had failed to bring up to the light of day. Imagine also that every little while one of the stone blocks, loosened from its place in the wall by the infiltration of the water, would come plunging

down upon us in the worse than Stygian darkness that was all about us. After all, it was not so bad as it sounds. It is true that the big blocks fell when and where they would and we were powerless to direct or even to see them, but so long as we kept our speaking-tubes, air hose, and life-line and ourselves well away from the wall surface we were in no special danger. As the rock masses fell, the push of the water before and around them reached us before the rock did and even if we did not get away of our own accord, it struck us like a huge soft cushion and sent us caroming, often head down and feet upward, balancing and tremulous like the white of an egg in a glassful of water, until the commotion subsided and we could get on our feet again. Had we incautiously been standing with our backs to the wall, we should have been sheared in two as cleanly as if by a pair of gigantic shears and two more victims would have been sacrificed to the Rain God.

Before the dredge had even been installed and months before it brought up the first load, I had been told by a *H'Men*, pointing to a certain spot: 'There is where the Palace of the Rain God lies, as our fathers told us.'

That spot was out of the 'fertile zone,' and considerably to the right of it, but I determined to examine it. I found a deep natural depression in the floor of the pool that, so far as my observation could show, existed in no other place; and around the edge of that depression I found the outstretched skeletons of three poor women. Around the neck of one of them there were several jade beads as pendants. Portions

of the garments worn by these victims preserved from decay in some strange way were secured for examination and study.

By what mode of reasoning did the *H'Men* or his predecessors select that special spot as the place where the Rain God dwelt? Its depth, if nothing else, made it physically impossible for a native diver to reach the place, spy it out, and return to the surface alive to tell of it. Who knows?

The natives for ages have believed that somewhere in those unknown depths the powerful God of the Waters had his home and that his anger caused the droughts, the pestilences, and the plagues of insects that from time to time descended upon the land. It was this belief that caused them to send messengers with supplications and rich gifts to propitiate the God. It can safely be inferred that the messengers were neither old women nor ill-favored.

The present natives of the region believe that big snakes and strange monsters live in the dark depths of the Sacred Well. Whether this belief is due to some faint remembrance of the old serpent worship, or is based upon something seen by some of the natives, can only be guessed at. I have seen big snakes and lizards swimming in these waters, but they were only snakes and lizards that in chasing their prey through the trees above had fallen into the pool and were trying to get out. We saw no traces of any reptiles or monsters of unusual size anywhere in the pool.

No strange reptile ever got me in its clutches, but I had one experience that is worth repeating. Both of us, the Greek diver and I, were busily digging

with our fingers in a narrow crevice of the floor and it was yielding such rich returns that we neglected some of our usual precautions. Suddenly I felt something over me, an enormous something that with a stealthy, gliding movement was pressing down on me. Something smooth and slimy was pushing me irresistibly into the mud. For a moment my blood ran cold. Then I felt the Greek beside me pushing at the object and I aided him until we had worked ourselves free. It was the decaying trunk of a tree that had drifted off the bank of mud and in sinking had encountered my stooping body.

One day I was seated on a rock gloating over a remarkable find, a moulded bell of metal, and I quite forgot to open the air valves as I should have done. I put the find in my pouch and rose to change my position, when suddenly I began to float upward like an inflated bladder. It was ludicrous, but also dangerous, for at this depth the blood is charged with bubbles like champagne and unless one rises slowly and gives the blood time to become normal, a terrible disease called the 'bends' results, from which one can die in terrible agony. Luckily I had enough presence of mind to open the valves before going up very far and so escaped the extreme penalty, but I suffer the effects of my carelessness today in a pair of injured ear drums and greatly impaired hearing.

Even after I had opened the valves and was rising more and more slowly, I struck the bottom of the pontoon topsy-turvy, half-dazed by the concussion. Then, realizing what had happened and laughing at the thought of the fright my boys must have had

when they heard me thump on the bottom of the boat, I scrambled from under it and threw my arm over the gunwale. As my helmet appeared over the side I felt a pair of arms thrown around my neck and startled eyes looked into the plate-glass goggles of my helmet. As they took off my diving-suit and I rested on a seat, getting back into normal condition and enjoying a cup of hot black coffee and the sunlight, the young Greek told me the story.

'The men,' he said, 'turned a pale yellow with terror when they heard the knock on the bottom that announced your unexpected arrival. When I told them what it was, they shook their heads mournfully and one of them, faithful old Juan Mis, said, "It's no use, *El Amo* the master is dead. He was swallowed by the Serpent God and spewed up again. We shall never hear him speak to us again"; and his eyes filled with tears. When your helmet came over the gunwale and he looked into its window, he raised both arms high above his head and said with great thankfulness, "Thank God, he is still alive, and laughing.'"

As for the results of our dredging and diving into the great water pit, the first and most important is that we proved that in all essential details the traditions about the Sacred Well are true. Then we found a great store of symbolical figures carved on jade stone and beaten on gold and copper disks, copal masses and nodules of resin incense, many skeletal remains, a number of *hul chés*, or dart-throwers, and many darts with finely worked points of flint, calcite, and obsidian; and some bits of ancient fabric. All

these had real archæological value. Objects of nearly pure gold were encountered, both cast, beaten, and engraved in *repoussé*, but they were few in number and relatively unimportant. Most of the so-called gold objects were of low-grade alloy, with more copper than gold in them. That which gave them their chief value were the symbolical and other figures cast or carved upon them.

Most of the objects brought up were in fragments. Probably they were votive offerings broken before being thrown into the well, as a ritualistic act performed by the priests. The breaking was always in such a way that the head and features of the personages represented on jade plaque or gold disk were left intact. We have reason to believe that these jade pendants, gold disks, and other ornaments of metal or stone when broken were considered to have been killed. It is known that these ancient civilized races of America believed, as did their still more ancient forbears of northern Asia and as the Mongols to this day believe, that jade and other sacred objects have life. Accordingly these ornaments were broken or 'killed' that their spirits might serve as ornaments to the messenger, whose spirit would be appropriately adorned when it finally appeared before the *Hunal Ku*, the One Supreme God in the Heavens.

That this belief has come down through the ages to the present day is shown by this curious fact: A Maya noted for his knowledge of herbs and native medicines, not quite a *H'Men*, but respected among his people, lost his wife in childbirth and, as a particularly esteemed friend of the family, I was invited

to the death feast, a ceremony much resembling the Celtic 'wake.' I was the only white man present.

The body of the beloved was dressed in new garments of white cotton cloth finely embroidered in the native fashion and handsome new shoes. I noticed first that the soles of the shoes had been cut in several places until the white stockings were to be seen between the slashes and then I saw that the new white garments had been similarly treated. I asked the husband the reason for this, and he answered:

'It is so that her soul shall appear before God dressed as the soul of my wife should be. If we had not done this, the spirits of the garments she wore would have remained in the coffin until the things rotted. Meantime the soul of my wife would remain without clothing, and that ought not to be.'

The value in money of the objects recovered from the Sacred Well with so much labor and at such expense is, to be sure, insignificant. But the value of all things is relative. The historian delves into the past as the engineer digs into the ground, and for the same reason, to make the future secure. It is conceivable that some of these objects have graven upon their surfaces, embodied in symbols, ideas and beliefs that reach back through the ages to the primal home of these peoples in that land beyond the seas. To help prove that is well worth the labor of a lifetime.

CHAPTER X

THROWING-STICKS AND JADE

FORGET for a moment the fire-hardened spear-point, the tree-root club, the toothed jawbone, and listen to the story of the most primitive type of man-made weapons in all the Americas, the *hul ché*, the throwing-stick, of the ancient peoples, brought up from the depths of mud and water on the bottom of the Sacred Well of Yucatan.

Like most useful inventions, the first throwing-stick was probably a casual product, the result of chance. The Maya native, if he was a Maya, probably wanted a club and one not too heavy, perhaps to kill a serpent or to give the *coup de grâce* to some still struggling victim. He wrenched off part of a branch from a near-by tree and, in so doing, left, half-detached and dangling from the crotch of the branch in his grasp, a straight slender medial sap-shoot. To be rid of the offending shoot, he impatiently whirled the club over his head. The straight and slender shaft of the shoot, detached by centrifugal force, became for the moment an arrow-like projectile.

The savage, if savage he was, keenly observant as most primitive people are, sought to repeat the action and get results from it. Retrieving the shoot, he shaped it to his liking and, placing its butt in the curve of the tree-branch club, with a quick swerving of the arm upward and forward he sent the straight and slender shaft hurtling through the air.

Thus, almost certainly, the first throwing-stick was made.

And this, the most primitive form, the bill-hook type, evolved from the tree-branch club, was but the first of a curious variety of throwing-sticks found in the deep black mud on the bottom of the Sacred Well, a series of improved forms and varied patterns culminating in beautifully carved votive weapons, encrusted with gold and gem mosaics. All were brought up from the very bottom of the Sacred Well of Chichen Itzá.

Think of the time that must have elapsed between the making of the first *hul ché*, and the elaborate, finely shaped, beautifully carved, ceremonial throwing-stick, encrusted with jade in mosaic! Evolutions of this kind do not take place overnight. Centuries certainly, ages it may be, were required to perfect the *hul ché* to this point.

The throwing-stick, although the earliest of man-made weapons in the Americas, was one of the latest to be recognized as such, for few have had the fortune to gaze upon an authentic specimen of the primitive throwing-stick of Yucatan. In fact, it has only been within a few years that certain objects held in the hands of the human figures carved on the walls and stone columns in Chichen Itzá and supposed by many students to be semi-mythical objects of a ritual nature have been recognized as representations of ancient throwing-sticks, both war forms and votive types.

So long had this most ancient weapon passed out of use among the Mayas that its very name was forgot-

ten and it is only through recent linguistic investigation that the ancient name for *hul ché* has been rescued from oblivion.

Throwing-sticks of a certain form, made of bone and ivory, are still used by the Esquimaux and the Aleutian Islanders and there are said to be evidences that they were used by pre-glacial man. Throwing-sticks resembling those of the Esquimaux have also been found in the deposits of the Florida Keys, among the habitations of the Cliff-Dwellers and the Pueblo people, and under the Rock Shelters of Arkansas.

Although the weapon itself and the name that it bore long ago passed from the memory of the Mayas of Yucatan, one single note of recollection seems to have come down clear-toned through the centuries. Since the earliest days of the Conquest of Yucatan, the natives have at certain fixed periods enacted various dances, some at least of a religious character. At first, before the conquerors felt themselves secure in the possession of the country, these dances were forbidden by both secular and religious authorities, but the natives kept them up in the forest depths, unknown to the Spaniards.

As time passed and the Spaniard became firmly seated in Mexico, the civil ban on the dances was removed and the performances were tolerated as amusing comedies that interested many and harmed no one. That of the religious authorities was, however, never formally lifted.

These native dances, generically called *Sh'Tol*, gradually became a recognized feature of certain periodic festivals of a secular character, like the days

of the Carnival. Among them all, that called *Hatz Ché*—The Striking of the Wands—is one of the most popular and most interesting. It is unquestionably a commemorative dance ritualistic in character. I venture to assert that it symbolizes a great victory gained by the Maya people, using the *hul ché* as a weapon.

The native music begins slowly, low-toned, and in a weird minor key. The dancers, in full regalia, plumed head-dresses and similar paraphernalia of a warlike character, come on the scene stealthily, with exaggerated silence and caution. The music gradually grows louder and the big *tunkul* drum drones out its booming notes as the dancers become more and more active and excited. The *hul chés* of the dance have become conventionalized into mere wands, but the handling of the wands, the posturings of the bodies of the dancers, the movement of their hands and heads simulate perfectly the stealthy approach, the dodging, the hiding, and the play of weapons during the attack. Finally, in a sudden tumult, each dancer leaps from his crouching attitude to an upright position, his arms stretch upward toward the heavens, and a triumphant chorus of shouts and cries denotes the final victory. After this the dancers sit in a close circle while cigars and drinks are passed about. This may well symbolize the dividing of the spoils.

But, after all, it is that one primitive type of the throwing-stick with the tree-branch thought still clinging to it, brought up from the depths of the Sacred Well, beneath one hundred and forty feet or

more of air space and water depth, that most appeals to us of this day.

The jade stone is to me not only the most mysterious but the most romantic of all gems.

It is so old that its history is interwoven with the cults of the Serpent and the Sun, two religious beliefs that were born when mankind was young. It was a gem so highly prized that great rulers gave and received specimens as priceless tokens before the diamond was ever known.

American jade, or jadeite, is the most mysterious stone of the world, for no modern man has yet been able to discover the deposits whence ancient man obtained it for his needs and purposes. Unlike the so-called Chinese jade, nodules of which are found in the river-beds of Burma and elsewhere, no man has ever recorded the finding of American jade, except as worked pieces, amulets, votive objects, and ornaments. Only among the ruins of the ancient American civilizations and amid the graves of their builders are these mysterious stones found, and then but rarely.

Chalchihuitl was the name for the green jade both among the ancient Toltec and the later Aztec people. In several of the Mexican States, Chiapas, Zacatecas, and Guerrero, are places with names that would seem to indicate the presence of jade in the matrix, but when I have sought and examined the mineral, it has proved to be either nephrite or serpentine, both green stones, but neither of them true jade. Many strange facts cluster about this mysterious stone and some of them I will recall.

Yucatan is a land of limestone formation and very recent, geologically speaking. In this formation no self-respecting natural jade deposit could possibly occur. In Central America to the south of Yucatan and in the Mexican States to the north of the peninsula, the geological conditions are such that the presence of jade in its matrix would not surprise the geologist. Yet it is in the ancient sites and burial-places on and near the peninsula of Yucatan that most of the true worked jades are found, while to the north and to the south where they might be expected to occur, the burial-places yield chiefly nephrite and serpentine, sometimes both, but rarely true jade.

This strange fact the advocates of that curious theory about the submerged lost continent of Atlantis have seized upon and made use of. They assert also that the jade found in the ancient sites and burial-places of Yucatan never came from America, but from the lost Atlantis described by Plato and others; that this continent, now submerged, was so close to the Americas that the West Indian islands of today are its mountain-tops. Yucatan, they believe, from its position naturally received the greater portion of the sacred green stone and as naturally kept the greater portion of what it had received.

They point to the recognized fact of the frequent divisions and subdivisions of the earlier large objects of jade as evidence that there was a sudden and total cessation of the supply after the submergence of Atlantis during that fateful 'one day and one night' described by Plato.

It is undeniable that in the dim prehistoric past,

jade figures and votive objects of large size abounded in Yucatan and to a certain extent elsewhere; that at some unknown period and for some unknown reason many of these larger jade objects were cut up and so divided that many small ones resulted from each large one. Among the specimens in the Peabody Museum are many that show clearly this process of subdivision. I once had in my possession a pendant formed of a single eye that some prehistoric artist had preserved intact from the division of a large jade figure.

All this is as may be, but so much is clear. The years have gone, the centuries and then the cycles. Temple walls and palace structures have toppled into formless masses and blinding lime dust. Even the massive pyramids have lost their outlines, but these bits of carved and polished jade are exactly as they were when fashioned. Their lines are as clear and their brightness as undimmed as when, unknown centuries ago, they left the hands of the prehistoric artists to grace the neck of a maiden or gem the regalia of a king.

CHAPTER XI

FAREWELL TO YUCATAN

WHEN I purchased the great plantation of Chichen, an area of one hundred square miles, it was my plan to develop it as my scientific home, a place where I could carry on my chosen work under the happiest auspices. I considered Chichen Itzá the best possible site in Yucatan for my purposes, and, as I have already shown, the event fully justified the choice.

I had wonderful dreams regarding the future of my place at Chichen, all connected with the advancement of science. Not all of these have I been able to realize, alas! Among other things, I had planned that as soon as my work had advanced to a certain stage, I would devote a tract of the land to the establishment of a station for tropical plant research. My long sojourn among the Mayas and a somewhat extensive survey of the plant life of Yucatan convinced me that a scientific study of the flora of the country might result in discoveries of great value to medicine, such as the *cinchona rubra*, or quinine.

I proposed that as outside interest in the antiquities of Middle America increased, hotels would be built on lands purchased or leased from me, in order to accommodate the tourist traffic. A certain proportion of the income from this source was to be used to aid in the maintenance of the research station.

Immediately adjoining the plantation is the small but important native village of Pisté, inhabited by

good people, industrious Mayas, my long-time friends. This village lacks the commons suitable for cultivation of crops possessed by other settlements in the country. I planned to donate to the people of Pisté acreage belonging to me immediately adjacent to the village sufficient for their cornfields. This gift I wished to make in memory of my friend Felipe Carrillo, former Governor of Yucatan, a faithful champion of the Indians, who was assassinated by revolutionists. It is my hope that when litigation in which the plantation is at present involved is ended, if the issue is favorable to me, I may yet carry out this and my other proposals at Chichen.

Now I will leave plans for a moment to discuss actualities and to relate some of the vicissitudes of the Yucatan planter. During one of the revolutions which have ravaged the country within the last twenty years, the plantation was visited by emissaries of radically Socialistic stripe who sought to teach the disgruntled spirits of the region that all things were theirs, that it was their right and privilege to seize for their own use whatever belonged to the ruling class. As a result of these teachings, cattle were driven away or destroyed, crops were gathered by others than their owners, and something like anarchy prevailed. During this period my plantation house was burned with all it contained while I was in Merida attending to urgent business. Much of the fruits of my long life of study and economies went up in a whirlwind of smoke and ashes. One notable loss was my library, with vast store of invaluable material on the antiquities of the Mayas.

After a long period of intense mental suffering and arduous labor, I succeeded in rebuilding the plantation and in making it again what I intended it to be, a scientific home for myself and my friends. Then I was dealt a second and even more serious blow by the Government of Mexico.

Extravagant reports had been circulated as to the value of the objects taken by me from the Sacred Well of Chichen Itzá. Some overenthusiastic friends had estimated the value of the golden finds to be \$500,000, and these statements, reaching the ears of the Government officials, caused them to sit up and take notice. Half a million dollars in American money has a value of well over a million pesos, Mexican money, a sum that looms large in the mind of anyone. Despite the fact that it has been proved that the intrinsic value of the finds is relatively unimportant, the plantation was attached by the Mexican Government for the sum of 1,300,000 pesos, and there the matter stands at the present time. I have competent lawyers defending my rights both in Yucatan and in Washington, but the end is not yet, nor is even in sight.

The matter is *sub judice*, and the decision of the courts must be awaited. Yet I have always felt that I should have been false to my duty as an archæologist had I, believing that the scientific treasures were at the bottom of the Sacred Well, failed to improve the opportunity and attempt to bring them to light, thus making them available for scientific study instead of remaining in the mud and useless to the world. I should have been equally false to my duty

as a scientist if, after bringing them to light, I had neglected to take all possible measures for their immediate security and permanent safety.

If I must ultimately lose my Chichen plantation as a sacrifice on the altar of science, I shall, of course, be debarred automatically from carrying out my varied purposes with regard to that property. I have nevertheless one worth-while consolation.

The Carnegie Institution, which has leased my property, is carrying out in its own way many of the things I desired to do, in addition to its work of systematic exploration and restoration in the ruined group of Chichen Itzá. It is calling to its staff medical and research workers who propose to study the plants of medicinal value and other uses and also to place their services without cost at the disposal of the Indians of the region. Thus a part, at least, of what I wished to do is being carried out, if not by me.

Even in Yucatan there is no adequate realization of the great good that is being done for the people and the country about Chichen by the Carnegie Institution. In restoring the ancient structures of the ruined cities, the Institution gives steady, healthful work to a large number of natives who greatly need the pay they receive for their labor. Not only in this eminently practical respect, but in others almost equal in importance, the Institution is rendering an invaluable service to the Indians. By example and precept the members of the staff are doing everything possible to increase the morale of the native population in the matter of healthy sentiments toward education, industry, and hygiene.

And so I bid farewell to Yucatan. No matter what the issue of the case now pending before the Federal Court for that Mexican State, I shall probably never return to the country where I spent so busily yet happily the fruitful years of my life. In this attitude of mine there is perhaps something of the feeling of the pioneer who, while rejoicing in the progress that has replaced the primeval forests of his youth with well-cultivated fields and thriving settlements, recalls with yearning the rugged days of yore.

In place of many of the rough bridle-paths by which I first travelled to ruined groups such as Chichen with horse and pack-mule, there now run modern highways with speeding motor cars. The specialist backed by unlimited resources has stepped in to complete the work in which I was among the pioneers. The task of reconstructing the story of the marvellous lost civilization of the Mayas is proceeding toward its accomplishment the faster because of these things and in that fact I find a mighty satisfaction. I am proud to hope that the labors of my lifetime may have contributed something to this end.

THE END

